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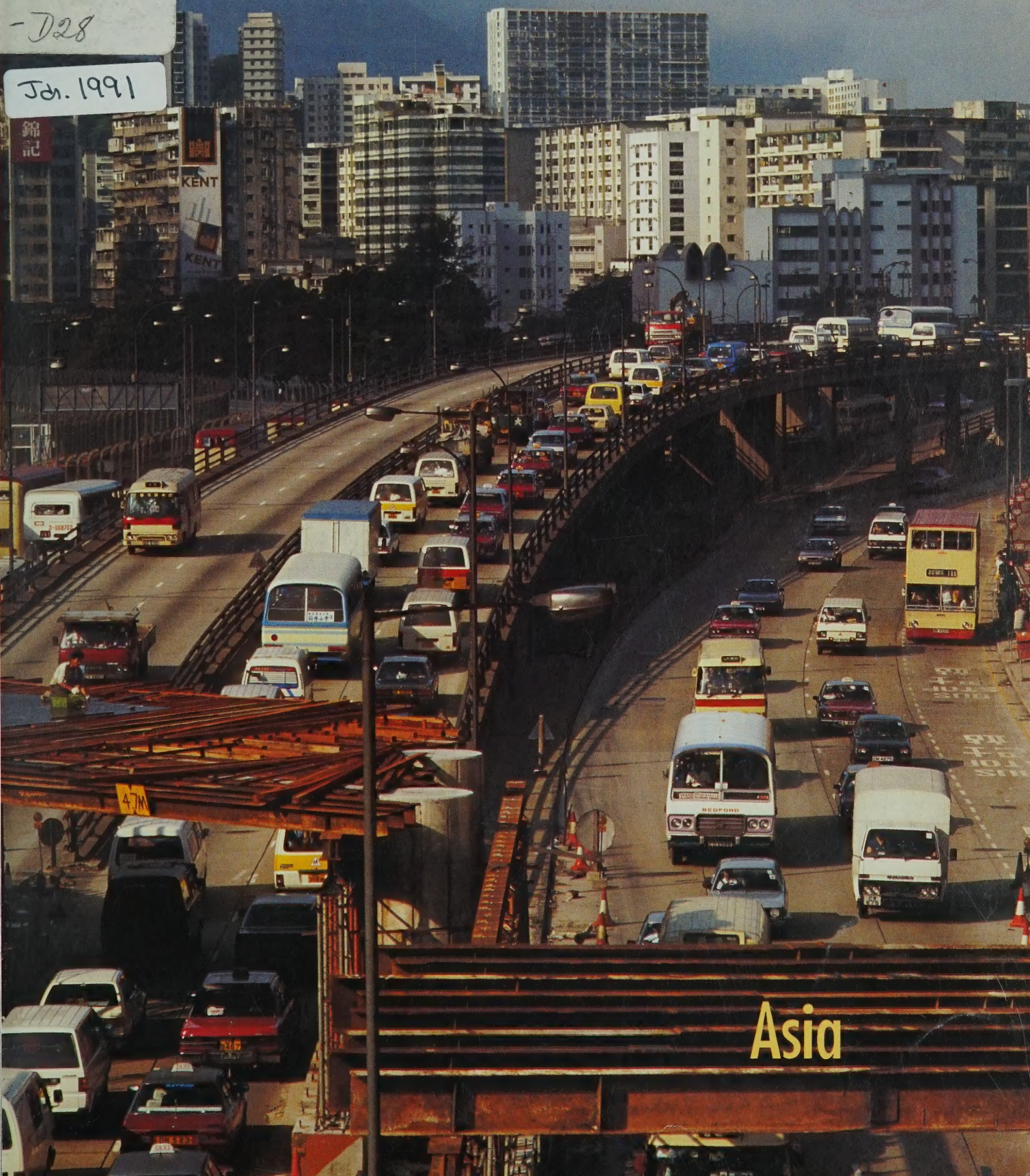
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ASIA: THE WORLD'S FASTEST GROWING REGION

North Americans and Europeans are only beginning to grasp the meaning of one of the most stunning developments of the postwar era.

World economic power is shifting toward Asia and the Pacific rim. A few decades ago, this part of the world used to evoke images of widespread malnutrition, large-scale famines, illiterate masses and impoverished peasants. Not any longer. Asia has seen its standards of living improve dramatically, and although poverty and malnutrition remain a challenge for the poorer nations, most Asian countries are experiencing record economic growth.

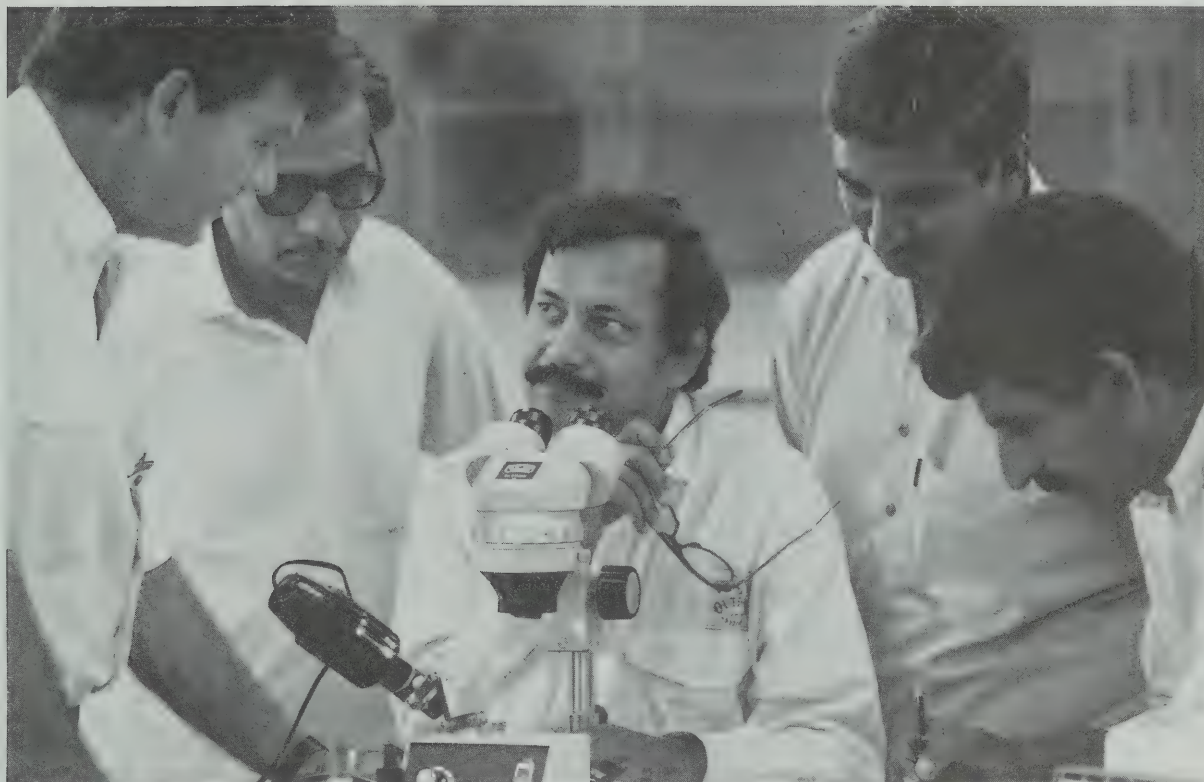
Today, Asia can boast having some of the world's most modern cities, best airlines and leading hotels. Part of the reason for this revolutionary change stems from the transformation of agrarian societies into highly modern economies, in which the manufacturing and service sectors account for the bulk of gross domestic product (GDP). Booming exports and rising consumer demand have raised standards of living. To achieve this sweeping change, Asia has relied on the development of its most important resource: human capital. The region can now count on the world's most dynamic private sector, first-class engineers and technicians, as well as one of the most skilled labor forces. Its engineers have achieved revolutionary breakthroughs in most fields of applied science. The human factor, more than anything else, is responsible for Asia's success in flooding world markets with its goods.

Living standards have risen considerably, with per capita income in some Asian industrializing countries already higher than in some European countries. Last year, the Bombay, Bangkok and Hong Kong Stock Exchanges outperformed the industrial world's leading markets, boosting the region to a level of prosperity unchallenged in the world. In many ways, Asia has become the 'Cinderella' of the developing world. As the world develops into a global market, countries of the region are moving swiftly toward the 21st century in a race for economic supremacy.

As an economic and trading bloc, Asia is growing faster than any other part of the world, and its share of world economy is likely to increase in the coming decades. It already accounts for the world's largest trade surpluses. By the year 2000, the population of the region will have reached the four billion mark. These people will produce half of the world's goods and services and consume more than the rest of the world combined. The industrial base of the region will be larger and more diversified in output than the combined industrial base of Europe and North America. For the next decades, economists predict that each of the major countries of Asia and the Pacific will experience greater economic growth rates than any of the members of the Organization for Economic Cooperation and Development (OECD).

Japan's miracle — rising from a war-torn country to a giant economic power within forty years — embodies the region's success story, but it is far from being the only one. Other countries have followed a similar path, turning economies ravaged by war, hunger and poverty into highly productive world leaders. By the turn of the century, East Asian industrializing economies will enjoy a GNP greater than Europe's and as big as North America's. And this trend is spreading rapidly. For several consecutive years, ASEAN¹ countries have had the world's highest regional growth rates, emerging as new lands of opportunity. Even South Asia's growth performance has been quite impressive, increasing in recent years at close to three times the pace of most industrialized countries. Efforts by some Asian nations to increase food production, curb population growth, expand educational opportunities, improve access to basic health services and sustain economic

1. The Association of Southeast Asian Nations, which consists of Brunei, Indonesia, Malaysia, the Philippines, Singapore and Thailand.



CIDA Photo: Ron Watts, Pakistan

Asia's most important resource, human capital, has produced one of the most skilled labour forces, capable of achieving revolutionary breakthroughs.

growth contain important lessons for today's developing countries.

This issue of *Development* looks at the emergence of this new Asia, unveiling in the process, some of its successes and challenges. It also reflects on the region's growing importance in the world. The document is divided into two distinct parts. Part One deals with the region's diversity and macro-economic trends. Chapters One and Two provide the reader with some background information on Asia's geography and population. Chapter Three highlights Asia's diversity and the dynamics of its four subregions: East Asia, South Asia, Southeast Asia and the Pacific. Chapters Four to Seven look at the performance of the dominant economy within each subregional grouping, with a focus on emerging trends.

Part Two examines some of the progress made in improving people's lives, in coping with population growth and in dealing with some major environmental threats. Chapter Eight examines some of the achievements and challenges in education, health and integrating women into the economic mainstream. Chapter Nine considers the limits imposed by population growth in relation to food production and urbanization, while Chapter Ten examines current threats to the environment and how Asian countries are responding to the challenge. Finally, Chapter Eleven provides an overview of Asia by the year 2000,

and discusses some of the prospects and implications of these trends.

But first, this document briefly looks at the growing ties between Canada and Asia, and how Asian influences are changing the fabric of our society.

CANADA: AN ACTIVE PRESENCE IN ASIA

Asia is both part of our past and our future. Canada's fascination with Asia is by no means new. As far back as a century ago, Canadian missionaries made their way deep into China, opened schools in Korea and taught in Japan. In the first decades of this century, diplomatic missions were opened in China and Japan. By the late '30s, Canada had missions as far as Kobe and Shanghai, reflecting its Pacific trade and the anticipation of greater ties. Canadian development assistance to the region began with the Colombo Plan when developed members of the Commonwealth undertook to share their experience and wealth with newly-independent nations of Asia. In the last 30 years, Canada has assisted Asian nations from China to Sri Lanka, from Nepal to Indonesia and Thailand, providing every form of economic assistance from natural resources management to roads and dams, from communications to human resource development.

Because trade is the cornerstone of our economy, Canada has more economic interests in Asia than most western countries, except the United States. Our trade with the Asia-Pacific region already exceeds that with Europe and is second only to our trade with the U.S. As new links are forged, trends

CIDA Photo: David Barbour, Thailand



Southeast Asia has a large number of skilled workers, an important factor in economic expansion.

deepen. Canada's exports to Asia and the Pacific grew by more than 30 per cent in 1988. Major markets include Japan, the People's Republic of China, South Korea, Hong Kong and Taiwan. Within a decade, it is expected that two-way trade between Canada and Asia will surpass \$50 billion.

To better enable our businesses to compete in the expanding markets of Asia and to attract investments and tourists, Prime Minister Brian Mulroney announced, in Singapore in October 1989, Canada's latest strategy to generate long-term economic growth and prosperity. Called *Going Global*, the policy includes some \$94 million worth of new trade, investment and technology designed to help our country remain internationally competitive in the 1990s. A key element of this new policy is a "Pacific 2000 Strategy" designed to ensure that Canada remains a key partner in the region. Funding is provided to upgrade Canadian skills in Asian culture and languages, as well as to increase cooperation with Japan in science and technology. Other innovative aspects place heavy emphasis on technology transfer and joint-ventures between Canadian and Asian firms.

The business community is also increasingly active in forging new links. While the Canadian Chamber of Commerce has broadened its activities in the region, the Pacific Rim Opportunities Conference, founded six years ago, has become the major forum in Canada for discussion of trade and investment opportunities and challenges in the markets of the Asia-Pacific region. The Sixth Conference, held at

Montreal last February, examined in depth each of the 13 major markets of the region. Keynote speakers included Canadian trade officials posted in the region, senior representatives from Canadian companies highly active and successful in the region, and high-level business people from the markets themselves.

"In 1983, our trade across the Pacific eclipsed our trade with Europe. This year, our trade with Japan, alone, will be broadly equal to our trade with the four largest Western European countries combined. Four of our ten largest markets are in this region. Our combined expectation is that Canada's exports to this region will grow by a further 50 per cent by the year 2000."

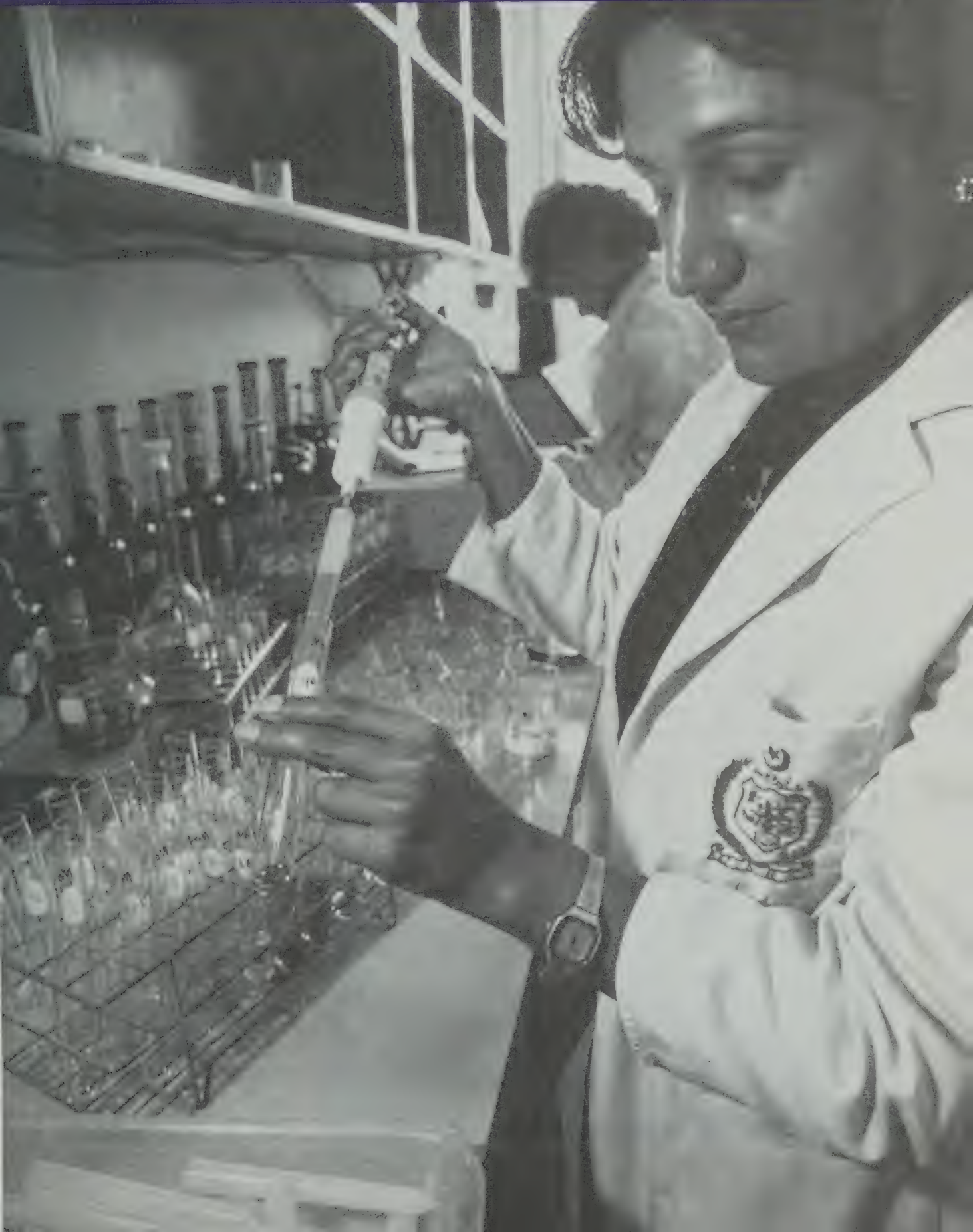
— *The Right Honorable Prime Minister, Brian Mulroney*

ASIA IN CANADA

Through a dynamic process, in many ways, Asia is now part of Canada. A strong and active community of Canadians of Asian origin have contributed significantly to our achievements as a nation. From every walk of life, they have brought hard work and dedication to the development of our nation. They now play an active role in all spheres of life, in government, the media, research, art and architecture, science, technology and industry, universities and businesses throughout the land — making our country richer in every possible way. This trend is likely to continue as a full 50 per cent of our immigration now comes from the Asia-Pacific region.

Asia is also present in many other ways, such as through new investment opportunities in Canada. Investment from Japan, Hong Kong, Taiwan and South Korea is growing rapidly in real estate, the automobile sector, natural resources, pulp and paper, in electronics and high-tech industries, thereby creating more jobs, new technologies and greater opportunities. In our universities, nearly half of all international students come from South and East Asia, more than three times the number of any other region. South and East Asian students form close to 60 per cent of the international student enrolment at the Bachelor-degree level, and over 40 per cent at the Master's and PHD levels. Even tourism is shaped by new trends. Japanese tourists have increased by some 450 per cent over the past five years and compose the highest-spending visitors we have . . . and the numbers are likely to increase in the next decade, as visitors from the rest of Asia join the ranks of international travelers. For all these reasons, Asia's emergence on the world scene is of prime interest to most Canadians.

Part 1: Asia's Diversity and Macro-economic Trends



UNDERSTANDING ASIA

*The Asian and Pacific region is both large and diverse,
if for no other reason than the sheer size of its population
— three-fifths of the world — and its geography.*

Asia is such a vast continent that only superlatives can be used to describe it. It is the most extensive of all, occupying 30 per cent of the world's land area. In size, Asia covers more area than North America, Europe and Australia combined. It has the world's largest deserts, longest rivers, highest mountains, and most extreme climates. Its shores are washed by the Arctic Sea to the North, the Pacific Ocean to the east, the Indian and Pacific Oceans to the South.

In this document, Asia refers to the great landmass stretching eastward from Afghanistan to Papua New Guinea. The majority of the region is either mountainous or arid, with ridges and plateaus accounting for about three-quarters of the total area.

The central core of the continent includes the deserts of west China and the Siberian Far East of the Soviet Union. In both regions, population densities are extremely low. To the

south of the great Asian desert lie the Himalayas, the highest mountains in the world. For example, Mount Everest reaches nearly 9 kilometres into air so thin that climbers must wear oxygen masks to survive. South of the Himalayas lies the Indian subcontinent, with its wide variety of landforms and climatic types, and its three great river systems: the Indus in the west, the Ganges in the north, and the Brahmaputra in the east and northeast. East of the Himalayas stretches a region known as the Far East. Mountains and plains are typical of the northern part of continental East Asia, while the Chinese and Manchurian lowlands are broken by a number of river systems.

South of China lies Southeast Asia and its geographic extension, the Pacific Islands. The continental part, which includes Vietnam, Cambodia, Laos, Thailand, Burma, and the Malay Peninsula, is dominated by rugged



and complex topography. Mountains are steep and covered with forests. The dominant features are the river valleys where the core of the population live and where the food grows well — the Red River in Vietnam, the Mekong River and its valleys in Vietnam, Cambodia and Laos, the Irrawaddy River Basin in Burma, the Menam Chao Phraya in Thailand. Beyond the continental margins stretches the Japanese, Philippine and Indonesian islands as well as Borneo and Papua New Guinea. The physical composition of these islands and archipelagos is even more complex. They are part of the Pacific 'ring of fire' and suffer periodic earthquakes and volcanoes. Indonesia, for instance, has more than 150 active volcanoes. Japan experiences an average of four earthquakes a day. The Pacific Islands are either volcanic

Asia, the Far East and the Orient

Asia, the Far East and the Orient are terms often used interchangeably, yet, subtle differences exist among them. Asia, as a geographical term, refers to the eastern portion of the Eurasian land mass and adjacent islands. In simpler words, it consists of the region from Turkey eastward, in-

cluding the Soviet Union. Thus defined, Asia is the largest continent. The Far East is more nebulous. Taken strictly, it refers to East Asia and includes countries like Japan, the Koreas, China, and the adjacent islands. But it has also been loosely extended to Vietnam, and even India, which explains

why the Far East has come to include all of Asia, east of Afghanistan. The Orient is what most people have in mind when they think about Asia, since it is used to refer to all the countries of the Asian continent, excluding the Soviet Union.



CIDA Photo: David Barbour, Philippines

In more flourishing parts, the tundra is covered with lichens, mosses and some grass. The taiga is that belt of coniferous forest and prairie land south of the tundra. In the Far East, the monsoon climate gives rise to a great variety of temperate and tropical vegetation. The subtropical and tropical climate harbor some of the world's largest rain forests (Indonesia, Malaysia, Philippines), while the savanna climate of India and South-east Asia has a mixture of tree and shrub grasslands.

Asia is a land of great rivers. Throughout its history, rivers have played a key role. Even today, population densities along the rivers in China, Indochina, India, and Bangladesh are among the highest in the world. River systems provide transportation, irrigation water, and, most importantly, through alluvial soils, they fertilize agricultural land, so vital to Asia's 3 billion people.

ASIA'S LEGACY

or coral. Volcanic islands are modeled around a mountainous core, while coral islands form low atolls.

As the world's largest continent, Asia's climates range from tropical to subarctic. As a result, the distribution pattern of rainfall is varied. A continental climate prevails over a large part of mainland Asia, but most of the populated areas of the region have tropical and subtropical climates, with maximum summer precipitation and minimum winter rainfall. In fact, the common feature that binds together such diverse landscapes as South Asia, Southeast Asia and the Pacific is the tropical climate. No other area of the world of comparable size has such a uniform climate. And the distinctive feature of this climate resides in the monsoon. The monsoon dominates the agricultural cycle and pattern of the Asian farmer. In the most

populated regions, it is said to form the very basis of life.

In broad terms, vegetation reflects the climate. The vast plains of North Asia are home to the tundra and the taiga. The tundra is that zone of cold, treeless plains with permanently frozen soils, such as in Northern Canada.

Asia has been home to some of the world's greatest and oldest cultures and civilizations, from Sumer to the Indus Valley and China. In addition, Asia's influence stretched to the New World. Some 15,000 years ago, Asians migrated from Siberia across the Bering Strait land bridge to

Asia's monsoon

Monsoon derives from an Arabic word meaning a season of the year during which the wind prevails. Best described as a seasonal reversal of winds, it is responsible in one season for the very dry wind that blows from the land to the sea, and, in another, for the very humid

wind which blows from the sea to the land. The causes of the monsoon are complex, involving land and water patterns, with global winds and ocean currents playing a key role. But the origin of the monsoon is less important than its impact. By providing the much-needed

moisture for the summer crop production, the monsoon makes the difference between good and bad crops, between self-sufficiency and famine. Most of South Asia's and Southeast Asia's agrarian economies rely primarily on the monsoon for their food security.

Asia — a Western concept

The term Asia is a Western concept, the product of a self-centred vision of the world. For centuries, Asians did not think of themselves as anything other than Chinese, Japanese, Burmese, Thais, Malays or Koreans. The word Asia originates from the ancient civilizations of Mesopotamia and the eastern Mediterranean and had special reference to the sun. Some Greek merchants may have picked it up from a

Phoenician counterpart, to designate the lands situated to the east of its homeland, some five to six hundred years before Christ.

A considerable expansion of trade between Greeks and Asians took place around the 4th century BC. A further development of land and sea routes, especially to South India, occurred during the Roman Empire. In the following centuries, however, trade be-

came increasingly difficult. Routes were abandoned and links severed. By the 13th century, Marco Polo, a Venetian explorer, had travelled to China, India and other eastern countries. His notes and sketches recorded his various encounters and reported the many wonders and marvels he had seen. Although largely ignored by his contemporaries, the record and accounts of his travels are by now largely confirmed.

become the first Americans.

Asia's legacy to mankind includes not only technical achievements but also religious and cultural heritage. Asia is the birthplace of most of the world's great religions: Hinduism, Sikhism, Taoism, Confucianism, Buddhism and Islam. Buddhism flourished in China, Korea, the Southeast Asian countries, and Sri Lanka. Confucianism prevailed in China, and Shintoism — a particular blend of Buddhism mixed with the cult of the

ancestors — in Japan. Islam has spread eastward to Afghanistan, Pakistan and India, and hence to Malaysia and Indonesia, while Hinduism has been largely confined to the Indian subcontinent.

Three thousand years before Christ, Asians already knew the arts of cooking and pottery and how to use fire in the smelting of ores as well as fireworks and gunpowder. They were also using irrigation and practising crop rotation. They had domesti-

cated animals and had invented the wheel, harness, saddle and chariot. In fact, for centuries, most of mankind's technical achievements came from this part of the world. Until European colonialism some 500 years ago, Asia represented the authentic middle of the world — a vast heartland where people of different races met, mingled and traded.

Its scientists had mastered mathematics, astronomy and navigation long before the Western world, while its health practitioners had developed sophisticated, indigenous systems of medicine, which are still applied today. Familiar with wood-carving and stone-cutting, Asians have left, throughout history, monuments that to this day evoke admiration. China's Great Wall, Cambodia's temple city of Angkor Wat, Thailand's Emerald Buddha and Grand Palace, and India's Taj Mahal are only a few examples of Asian ingenuity and architectural skill.

By the 15th century, Asia's material and spiritual advancements were the envy of European monarchs. Ultimately, it was the region's wealth and prosperity that attracted the European powers and eventually led to the partition of Asia.

THE SCARS OF COLONIALISM

By the 16th century, European powers dreamt of establishing a monopoly over the lucrative trade of spice and gems. With the exception of Japan, Thailand, Mongolia and the land-locked kingdoms of Nepal and Bhutan, the entire region became dominated by European colonial powers. The Portuguese were the first Westerners to reach the area in the early 16th century, soon followed by the Spanish, Dutch and English. By the 19th century, the English had expanded eastward from India, and the French had penetrated most of Indochina (Vietnam, Laos and Cambodia).



Asia is the birthplace of most of the world's great religions.



First Light Photo: Brent Bear, Japan

European conquest and colonization left an indelible mark on much of Asia, affecting both the fabric of life and the landscape of the region. It transformed the economy, altered the traditional political and social structures, and even changed, in some cases, the regional ethnic make-up. Part of the reason why colonialism had such a negative impact on the region was that the partition of Asia was done to accommodate Europeans' whims. As a result, imposed boundaries were created — boundaries that fragmented ethnic and cultural groups. European cities were built to exploit the region's resources. But most importantly, the European powers changed the agricultural and trading systems for their own benefit. Emphasis on cash crops for exports rather than traditional self-sufficiency initiated a series of regional food deficits and famines. The Western-type plantations of coffee, rubber and tea forced upon several economies required a large number of people. To

meet this need, millions of Chinese and Indian laborers were recruited to work in Southeast Asia's plantations, thus, substantially modifying ethnic distribution. Finally, under colonialism, a new pattern of trade emerged, which crippled even more of the region. Asian countries, with the exception of Japan and Thailand, became exporters of raw materials and importers of manufactured products, thus reversing the previous trade pattern responsible for much of Asia's fabled wealth. The heyday of European colonial rule in the region coincided with the latter part of the 19th century and the early part of the 20th century.

By the end of the Second World War, much of the Orient was engulfed in the struggle for self-government. The Philippines achieved its independence in 1945; India and Pakistan in 1947; Sri Lanka and Burma in 1948; Cambodia in 1954 and Malaya in 1957, with the Borneo colonies being added in 1963 to form the Federation of Malaysia.

TODAY'S ASIA

Ironically, Asia is emerging today as the economic engine of the world it once was. Japan has become an economic superpower and one of the great industrial nations of the world. In the past decade, China has begun to make a notable impact on the international scene, while India yearns to play the role of a superpower. The newly industrialized countries are blazing a path for the rest of the developing world, while some countries in Southeast Asia (Thailand and Malaysia) are experiencing phenomenal economic growth. Throughout the region, a feeling of confidence prevails. Asians are proud of their achievements. And they ought to be — much of the progress achieved has been made possible through hard work, sheer determination and high savings. And this confidence supports their claim that the coming century will be the Pacific century.

ASIA'S POPULATION

*Asia is the most populous of the continents.
An estimated 3 billion people, more than half the
human race, live in this part of the world,
up from 1.4 billion in 1950.*

According to estimates, this figure will hover around the 4 billion mark within ten years, and reach 4.5 billion by the year 2025. East Asia has a population of about 1.3 billion, with China alone accounting for 1.1 billion. South Asia is home to over 1 bil-

lion people, while close to 430 million live in Southeast Asia, and over 5 million in the South Pacific islands. their growth rates. Japan has already reached the replacement level. Overall, East Asia's growth rate, after peaking at 2.2 per cent in the '70s now stands at 1.2 per cent and is expected to drop below 1 per cent by the year 2000. In Southeast and South Asia, with the notable exception of Indonesia, Thailand and Sri Lanka, the slowing in growth has been more gradual. These populations are expanding at 2.2 per cent and are expected to grow at 1.5 per cent by 2000. In numbers, the 1980 total of 1400 million is expected to be 2800 million by 2025.

In broad terms, the population of Asia can be divided into the Caucasoid groups of Pakistan, India and Bangladesh; the Malay group of Southeast Asia; and the Mongoloid groups of China and East Asia. The actual distribution of peoples is as complex as the physical geographic features of the region. Mingling among people has taken place in this region for many thousands of years, so clear-cut distinctions are hard to establish. Once again, in broad terms, it can be said that the Caucasoid people have domi-

By the year 2000, Asia's population will have reached the f

nated the Ganges and Indus plains and have had a major impact on the southern part of the Indian peninsula.

China, with one quarter of the world's population, has halved its growth over the past decade and single child families are now prevalent.

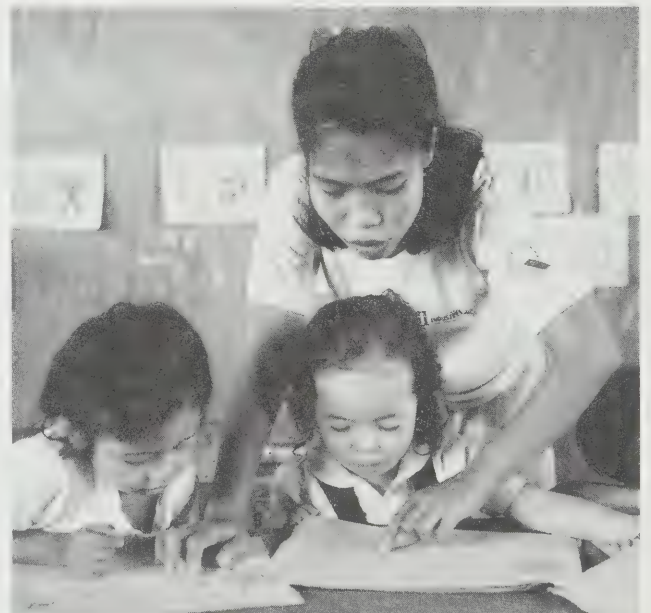
lion people, while close to 430 million live in Southeast Asia, and over 5 million in the South Pacific islands.

As can be expected, there is no uniform demographic trend. Population growth rates differ according to sub-regional patterns, with East Asia showing the sharpest decline. China, for instance, with one quarter of the world's population, has dramatically halved its population growth over the past decade. The Republic of Korea, Taiwan and Hong Kong have also been quite successful in reducing

ASEAN contributions have ensured that more children survive and go to school.



CIDA Photo: David Barbour, China



CIDA Photo: David Barbour, Philippines



CIDA Photo: Roger Lemoyne, Bangladesh

China and Mongolia, the heart of the Mongoloid race, spread outward to populate Korea, Japan, and most of Southeast Asia, excluding the Malay peninsula. The Malay ethnic groups predominate in the Malay peninsula

and the islands of Southeast Asia excluding Japan and New Guinea.

The language pattern of the region is as problematic as the ethnic configuration. Few countries have a dominant language spoken by all. Prior to India's

English — Asia's lingua franca

Remnants of colonialism and linguistic complexity have favored the emergence of a common language used by people of different linguistic backgrounds to communicate among themselves. English has played precisely this role. English serves as the 'lingua franca' throughout East, South and Southeast Asia, especially among

the educated and elite classes. It is the most widely used non-Asian language. As such, it is a prime vehicle for business, government, law, education and tourism. So strong is its influence that it is associated with social mobility and economic success. In some Asian countries, people are doing all they can to learn English. In others,

like Malaysia, India and Hong Kong, English enjoys official status, and is widely taught in schools. To a lesser extent, French has assumed the same role, but only in some countries of Southeast Asia. In Vietnam, Laos and Cambodia, for example, French is still commonly spoken among the elite and is taught in some schools.

1. Major language groups of Asia and numbers of speakers

Language family and language	Region used	Speakers (millions)
------------------------------	-------------	---------------------

Indo-European

Hindi	India	300
Bengali	Bangladesh, India	160
Marathi	India	70
Punjabi	India, Pakistan	75
Gujarti	India	35
Urdu	West Pakistan	70

Sino-Tibetan

Chinese (Mandarin)	China, Taiwan	750
Cantonese	South China, Taiwan	70
Wu	South China	55
Min	South China, Taiwan	48
Hakka	South China	32
Vietnamese	Vietnam	60
Thai	Thailand	52

Dravidian

Telegu	Indian Peninsula	64
Tamil	Sri Lanka, Indian Peninsula	52
Kannada	Indian Peninsula	31
Malayalam	Indian Peninsula	26

Japanese-Korean

Japanese	Japan	120
Korean	North and South Korea	62

Austronesian

Indonesian	Indonesia	162
Javanese	Indonesia	55

Source: R H. Jackson and L.E. Hudman, *World Regional Geography, Issues for Today*, John Wiley & Sons, New York, 1986, p. 309.

independence, the British Government had recognized 179 official languages and 514 dialects. Even in today's India, over 20 languages are spoken by groups that are politically important. The same kind of diversity exists throughout Asia, as table 1 illustrates.

ASIA'S INCREDIBLE DIVERSITY

Asia is such a diverse continent, such a land of contrasts and extremes, that in addition to cultural, religious, ethnic and linguistic differences, countries vary also in terms of size, population, political institutions, levels of economic development and demographic trends.

When considered in terms of size, the People's Republic of China, India, Indonesia and Japan stand at one end of the scale, while, among others, Brunei, Singapore, Hong Kong, Cambodia and the island-nations of the Pacific are at the lower end. Levels of development and income vary just as dramatically. On the one hand, Asia includes the world's most successful industrialized state — Japan. The newly industrializing countries (NICs) of Hong Kong, Singapore, Taiwan and the Republic of Korea stand at an intermediate stage of development and income. ASEAN countries, especially Thailand and Malaysia, follow closely behind, while the South Asian economies and the socialist South East Asian countries are at the lower end of the scale, with low income levels and economic structures among the least developed in the world. The 1988 GNP per capita ranged from US\$170 in Bangladesh to US\$440 in Indonesia, US\$9,220 in Hong Kong and US\$21,020 in Japan.

Demographic trends correlate closely to economic indicators. The highest demographic rates are found in the poorest countries, while in the most industrializing nations fertility has fallen more rapidly than anticipated. Japan

has already reached replacement level and is becoming the most rapidly ageing country in the world.

Finally, the region is characterized

by nearly every type of economic and political system, from free market economies to mixed and highly centralized ones. But, the success of capitalist economies has been such that pragmatism is prevailing over ideology, in mixed as well as in communist states. Privatization is in, centralization is out. In other words, market forces, rather than technocrats, now dictate the direction of development. The reason stems from the fact that Asia's recovery and economic success is tied to the flexibility and dynamism of its private sector, operating most efficiently within a free market economy. Even communist states have recognized this, and have adopted some measures of market liberalization.

Almost every kind of political regime can be found in Asia. Some countries have communist or military dictatorships. Others are democracies



The success of capitalist economies has prevailed to the extent that some communist states have adopted market

with one dominant party, while a third group is experiencing popular democratic renewal. The status of European colonies has been settled. Hong Kong, a British crown colony, and Macau, a Portuguese colony, will be returned to mainland China in 1997 and 1999 respectively.

Even more striking is the new detente that is taking place among former foes. South Korea is courting China and the Soviet Union. Taiwan is trying to establish a practical relationship with its arch rival, China. There are even signs that Vietnam wishes to reintegrate with the international community.

"The rapprochement in relations between China and the non-communist world in the Asia/Pacific region has reduced international tensions."
— Koichi Kato, Member of the House of Representatives, Japan.



CIDA Photo: Gary Chapman, China

2. Regional differences, population and per capita income

Country	Population 1988 (millions)	GNP per capita 1988 (\$US)	Average annual growth rate % 1965-1988
South Asia			
Sri Lanka	16.6	\$420	3.0
Pakistan	106.3	\$350	2.5
India	815.6	\$340	1.8
Afghanistan	15.7	\$280	...
Nepal	18.0	\$180	1.9
Bhutan	1.4	\$180	...
Bangladesh	109.0	\$170	0.4
Maldives	0.2	\$410	2.3
Southeast Asia			
Singapore	2.6	\$9,070	7.2
Malaysia	17.0	\$1,940	4.0
Thailand	54.5	\$1,000	4.0
Philippines	59.9	\$630	1.6
Indonesia	174.8	\$440	4.3
Laos	3.9	\$180	...
Vietnam	64.2	\$240	...
Cambodia	7.7	\$130	...
Burma	40.0	\$200	2.3
East Asia			
Japan	122.6	\$21,020	4.3
Hong Kong	5.7	\$9,220	6.3
North Korea	21.9	\$970	...
South Korea	42.0	\$3,600	6.8
China's People's Rep.	1,088.4	\$330	5.4
Mongolia	2.1	...	...
South Pacific			
Fiji	0.73	\$1,520	1.9
Vanuatu	0.15	\$840	...
Tonga	0.09	\$830	...
Papua New Guinea	3.70	\$810	0.5
Western Samoa	0.16	\$640	...
Solomon Islands	0.30	\$630	...
Kiribati	0.07	\$650	...

Source: World Development Report 1990, World Bank

NOT ONE, BUT FOUR ASIAs

For all of Asia's diversity, it is increasingly difficult, if not impossible, to view the region as a whole. For one thing, Asia lacks the ethnic, religious, linguistic and cultural homogeneity of the other conti-

nents and subcontinents of the world. In addition, subregional differences in terms of socio-economic development are so marked as to make generalizations meaningless.

Out of necessity, Asian countries have formed four big groupings of nations: the Far East, Southeast Asia, South Asia, and South Pacific. The



CIDA Photo: Pat Morrow, China

3. Quality of life index in selected countries (1985)

	Life expectancy 1989	Infant mortality rate per 1,000 births 1989	Literacy rate (%) 1985
Hong Kong	76	9	90
Singapore	73	9	84
Sri Lanka	70	36	86
China	69	35	69
S.Korea	69	34	96
Malaysia	68	28	60
Thailand	64	43	86
Philippines	63	48	83
Indonesia	55	96	62
India	56	89	36
Pakistan	51	115	24
Bangladesh	51	123	26
Bhutan	44	133	10
Myanmar	59	66	66
Laos	45	151	44
Vietnam	65	49	..
Papua New Guinea	52	68	32
Fiji	65	35	..
Kiribati	53	87	..
Vanuatu	56	42	..

Sources:

Human Development Report 1990, UNDP.

The State of the World's Children 1991, UNICEF.

first group borders the eastern edge of the continent. It includes Hong Kong, North and South Korea, Macau, Mongolia, with China and Japan being the leading countries in the Far East. Brunei, Burma, Thailand, Malaysia, Singapore, the Philippines, Indochina (Vietnam, Laos, Cambodia) and the islands of Indonesia make up the second group. The third group encompasses the Indian subcontinent — Afghanistan, Pakistan, India, Bangladesh, Bhutan, Nepal, Maldives, Sri Lanka. The fourth cluster includes the island-nations of South Pacific (Melanesia, Micronesia and Polynesia). The following chapters examine some of the major economic trends shaping Asia's four regional groupings.



Fry-harvesting in the Philippines.

CIDA Photo: David Barbour

EAST ASIA'S BOOMING ECONOMIES

*Of all Asian regions,
none have enjoyed growth
rates as spectacular as
East Asia.*



First Light Photo: Ken Stralton, Tokyo

In fact, in the last 20 years, it has emerged as the fastest growing subregion in the world, largely because of the buoyant economies of Japan, Taiwan, South Korea, Hong Kong and the People's Republic of China. By the turn of this century, East Asian economies will have a joint gross national product greater than that of Western Europe and as large as North America. To fully appreciate this remarkable recovery, it must be recalled that thirty years ago Europe's GNP was three times as large and North America's twice as large as East Asia. Today, the region not only accounts for unsurpassed growth rates, but also holds the best prospects for the next decades. In the 21st century, two of the world's four greatest powers expected to dominate the international scene will be East Asian powers — China and Japan.

This chapter focuses on Japan and its emergence as an economic superpower. It also briefly examines the performance of the newly industrialized countries (NICs) of East Asia.

SUPER JAPAN

***"The big development
in the latter part of the
century is the emergence
of Japan as a major
superpower."***

One country in Asia stands out as a symbol of aspiration: Japan. In the past forty years, it has evolved from a war-torn country to an economic superpower. The defeat of Japan at the end of the Second World War prompted the country to under-

take radical changes, both politically and economically. By the '60s, Japan's economy was growing at the rate of 10 per cent or more a year. By the '70s, it had emerged as the third economic

power, after the USA and USSR. The '80s have confirmed the rise of Japan to the status of an economic superpower. The country enjoys one of the highest GNPs in the world, while its enormous trade surplus has made it the world's leading creditor. Its unemployment rate, currently 2.6 per cent, has been the lowest among the big five OECD economies for the past 20 years. It is the most secure, with inflation running at only 1.6 per cent. With

interest rates as low as 3.5 per cent, consumer demand is strong and the prospects look bright. Because of its status and influence, there is little doubt that Japan will continue to be the most dominant force in the region. At a time when most developed countries are facing slow growth, and experts argue about the U.S. decline, Japan's economy is markedly on the rise.

"The big development in the latter part of the century is the emergence of Japan as a major superpower."
— Clyde Prestwick, former Deputy Assistant Secretary of Commerce in the Reagan Administration.

Japan has become the world's richest country, surpassing the U.S. in 1987, with national assets worth over US\$40 billion. It is the largest source of capital in the world, with a current account of over \$900 million in 1988. Nowadays, money coming out of Japan is greater than that from the Middle East at the height of the oil boom. By the turn of the century, experts predict that Japanese net overseas investment holdings will exceed \$US 1 trillion and that the yen may well have replaced the dollar as an international currency.



First Light Photo: Jim Brandenburg

A glimpse of traditional Japan.

JAPAN'S DISTINCTIVENESS

Everything is different about Japan — its history, religion and culture. Even its geography is radically distinct from that of most European industrial nations. Japan consists of four main islands and more than 3000 smaller ones, forming a 2250-kilometre

arc from northeast to southwest.

The hilly and mountainous terrain covers three-quarters of the country, thus limiting considerably the area devoted to agriculture and settlements. Over 122 million people are concentrated in only 16 per cent of the total land area. Japan has few mineral deposits, and virtually no petroleum supplies. Nevertheless,

the country was able to become a world economic superpower, mostly because of its human capital. Japan has compensated what it lacks in natural resources by developing one of the most skilled populations in the world. Education is so valued that nearly everyone is literate, and learning is a driving force among younger Japanese.

Two other features of Japan's distinctiveness should be singled out. Culturally, Japan is the only non-European country that has reached a post-industrial development level. Furthermore, unlike most of its neighbors, Japan has never been colonized, although its emergence is linked to a unique blend of oriental and occidental characteristics.

JAPAN'S EMERGENCE ON THE WORLD SCENE

The country's astonishing growth since World War II resulted from a national will to rebuild a ravaged economy. In the years following the Second World War, the Japanese engaged in a program of rapid reconstruction. Industrialization increased so rapidly that the economy grew at a rate of 10 per cent in the ensuing years. In the '60s, a very high rate of investment coupled with nearly full employment kept the economy growing. At that time, Japan started developing a highly skilled labor force, and bought new techniques from more advanced economies, mainly the United States.

The flotation of the U.S. dollar in 1971 and the first oil crisis two years later, reduced Japan's rate of growth, but only temporarily. Its impact, however, marked a turning point in the country's economic history. Whereas, prior to the mid-'70s exports played a minor role in Japan's growth, from that point on, they carried the country

Japan's distinctive features

Japan's emergence as one of the world's leading industrial nations in the last 30 years is tied to a number of factors. First among these is a homogeneous population with a strong sense of cultural identity and unity. The Japanese are bound by a web of mutual obligations that link every individual. They also value highly the principles of hard-work, loyalty, self-sacrifice, and commitment to the nation rather than to the individual. In fact, the entire society hails the

duty to the nation as its most sacred trust. For Japanese workers, achievements in boosting efficiency, productivity and gaining a competitive edge is part of their work ethic, and a reflection of this wider social consensus.

Japan's development is also marked by another specific feature — a combination of large corporations and small manufacturing companies. Worldwide-known names, such as Sony, Yamaha, Hitachi, Toshiba, Mitsubishi, Toyota,

Isuzu, Honda, Fujitsu and others, give the impression that large holdings dominate the Japanese economy. In reality, only 1 per cent of Japan's manufacturing industries are large corporations with numerous plants and large numbers of employees. The bulk of the country's processing activities come from small-scale industries, acting either as suppliers or as sub-assemblers in a large manufacturing process.

to a level of unprecedented prosperity. Forced to restructure its production, because of depressed internal markets, the Japanese private sector opened up to external markets and made its first concerted effort. Success in exports was rapid and linked to a combination of factors, including managerial skills and technical progress both to develop new products and reduce the cost of producing existing ones.

These changes led to an extraordinary growth of the trade surplus from about \$3 billion a year in the late '60s to more than \$100 billion in 1986. The magnitude of this thrust is such that, while former prime minister Nakasone was in office, Japan's current account surplus grew from \$8 billion a year to \$8 billion a month.

Since 1986, Japan has gone through one of the fastest and most successful adjustments ever asked of a large economy. The Plaza Agreement signed in 1986 initiated a 50 per cent revaluation of the yen against the U.S. dollar. This agreement was intended to blunt Japanese competitiveness. Instead, it spurred Japan's export performance. Experts have advanced a variety of reasons for the phenomenon. Some have said that foreign markets had not yet responded to the higher cost of Japanese products. Others have pointed out that the rise of exports could be linked to the higher dollar value of the goods Japan was sending overseas, and by capital purchases made by Japanese companies with new factories abroad. Despite the validity of these views, the main reason seems to lie in the sweeping transformation the Japanese corporations are undergoing. The increase in the value of the yen has prompted them to acquire new strengths in domestic and foreign markets, by investing heavily in new product areas, developing new research, production and marketing processes and reducing costs.

"Our challenge is to map a manufacturing method to take us into the



First Light: Ken Straiton, Japan

To maintain its technological lead, Japan funds the research and development of new ideas and products.

next century. Although we are just beginning to solve this question, most Americans and Europeans companies have not yet begun their search."

— *Jinichiro Nakane, Professor, Waseda University's System Science Institute.*

If one factor were to be singled out as being responsible for Japan's economic success, it would have to be flexibility. Japan's corporations have mastered a unique ability in adapting

to changing consumer needs and demands — unprecedented in modern corporate history.

"Reacting to consumers and to changes in the economic environment are now key parts of our strategy. We launched a new model on February 27, 1988. Over the next three years, we will take 30 per cent out of the cost of making it," says Mr. Genichi Nagaoka, senior managing director at Mazda.

The chip war

Of all the trade battles between Japan and the U.S., few have provoked more friction than the fight over the semiconductor industry, known as the 'chip war'. Because of their use in high-tech industries, electronic chips have become a key commodity in world trade. Figures say much about why the bickering has been so intense. Ten years ago, U.S. companies manufactured 80 per cent of the world's computer

microchips. Over the years, Japanese companies have taken on U.S. corporations and won. They now control roughly the share the U.S. held previously. In face of what Americans considered dumping practices that threatened the viability of U.S. producers — and in violation of an agreement, which the U.S. claims the Japanese failed to respect — former President Reagan imposed in March 1987 punitive sanctions on Ja-

pinese goods to compensate for U.S. losses.

In Europe, the dominant issue in trade skirmishes has evolved around the participation of foreigners in the Japanese telecommunications industry, long a monopoly of Kokusai Denshin Denwa Corporation. In Britain, efforts have been made to persuade the government to limit the participation of Japanese firms in the banking sector.

This competitive edge is the source of Japan's trade surpluses, which are haunting the country's political leadership. Year after year, surpluses have given way to serious trade frictions with the U.S., Europe and even Southeast Asia. Japan's corporate and political circles recognize that large trade surpluses are not sustainable in the long term. One sound reason is that their international trade partners will not tolerate increasing deficits as part of their normal bilateral relations with Japan.

JAPAN'S ECONOMY: DOOMED TO SUCCEED

Japan's future does indeed look bright. The economy performed strongly in 1988: domestic demand rose at an annual rate of over 8 per cent, unemployment fell, prices remained stable and real net exports declined. Real GNP increased that year at an annual rate of 6.1 per cent, and was projected to grow by 4.5 per cent in 1989 and slightly less in 1990. The trade surplus is expected to remain largely unchanged, running at some \$100 billion a year. For all these reasons, Japan holds the enviable position of being the most secure economy for growth in the '90s. In order to fulfil these predictions, Japan has already taken steps, once again, to reorient its economy. This time, the focus is on strengthening and expanding consumer demand. In other words, to rely less on exports and more on consumerism to fuel the economy.

To maintain its technological lead, Japan has been investing heavily in research and development of new ideas and products, boosting three-fold its research and development spending at home from 1976 to 1985. Its companies are already mapping the future. By the turn of the century,

The Japanese are rich and getting richer

Japan's export performance has fuelled a domestic boom. According to a recent financial survey, all of the world's top ten banks are Japanese-owned. In 1988, Japan had a GNP per capita of US\$21,020, bringing it ahead of the United States for the first time. This new wealth is the result of average earnings rising by 4 per cent and more a year in the past three decades. According to Forbes Magazine, six out of the ten richest men in the world

are Japanese.

Despite Forbes' claim, and much to Japan's credit, the country has achieved one of the world's most equal distributions of wealth. There is a surprisingly small number of very rich or very poor people in today's Japan. Ask Japanese what class they belong to and nine out of ten say "middle". The Japanese see being middle class as meaning someone who is industrious and conservative.

Japanese are big

savers. Domestic savings account for the bulk of the Japanese trade surplus. People like to invest their savings in land, which locks up 60 per cent of the country's wealth. The sharp rise in land prices makes a lot of Japanese potentially very rich. A recent survey found that within a 25-mile radius of the centre of Tokyo, 1.3 million households had a net worth of 100 million yen or more. In other words, they were instant millionaires.

Japan will be a recognized world leader in process technology. By that time, the country plans to invest US\$80 billion in space activities. It is already working on a FSX super fighter with the U.S., and plans to produce an aircraft capable of flying at five times the speed of sound, linking To-

kyo to London in just three hours. And it is developing a fifth generation computer.

With net foreign assets of over \$250 billion, the biggest such stock any country has ever had, Japan's direct overseas investment in 1987 was up to nearly three times what it was



In the past forty years, Japan has become an economic superpower and is investing widely.

First Light Photo: Ken Stratton

in 1985, and seven times what it was in 1980. This comes as a result of the reallocation of large numbers of Japanese corporations abroad. Fearful of protectionism and over-dependence on a single market, and because of higher wages, Japanese companies started moving production offshore. Between 1970 and 1980 Japan's foreign investment was worth US\$3 to 5 billion a year. Between 1980 and 1985, it climbed to US\$12.2 billion a year. In 1986, it doubled to US\$22.4 billion. By 1987, it topped the US\$34 billion mark. Japanese corporations are now investing more abroad each year than companies from any other country. These investments, from companies of all sizes, are concentrated in North America, Europe and Asia, with an increasing emphasis on the latter. In 1987, Japanese investment in the Asia-Pacific region was more than twice its level in 1986. In 1989, an average of one Japanese company each day of the week was establishing new facilities in Thailand.

JAPAN'S NEW INTERNATIONAL ROLE

A quarter of a century ago, Japan was second only to India as a borrower from the World Bank. Nowadays, Japan is a major donor to the World Bank and contributes nearly 11 per cent of the United Nation's annual budget, second to the U.S. In dollar terms, Japan has become the largest source of aid to the Third World. At the Toronto summit in 1988, then Prime Minister Takeshita unveiled a \$50 billion foreign-aid package that makes Tokyo the world's most generous donor.

While the ODA (official development assistance) of most industrialized countries either stagnated or declined, Japan's ODA doubled in each of the two five-year periods



Japan will be a world leader in semi-conductor technology.

since 1976. The government has announced a further doubling by 1992. But relative to Japan's economic capacity these increases in ODA are less impressive. In 1986, Japan's ODA amounted to 0.29 per cent of GNP, ranking it fourteenth among the other industrialized countries.

Since the early 1980s, Japan's ruling political and economic elites have come to realize that, as an economic superpower, Japan should assume more international responsibility. In fact, the whole country is swept by debate over the merits of internationalization. Under this new

thrust, development aid has come to play a double role: promoting the economic and political stability of nearby countries in East and Southeast Asia, which are the main suppliers of raw materials and prime target countries for investors, while also serving as a way to repay historic debts owed to countries that were occupied by Japan during the Second World War. Up to now, about two-thirds of Japan's ODA has been concentrated on Asia. Japan is the most important bilateral donor for 18 Asian states, among which China accounts for the lion's share.

First Light: Ken Love, Japan

EMULATING JAPAN

Japan's success in modernization encourages those who yearn for a similar breakthrough in other Asian countries. As a model, Japan offers promise, but can the miracle be duplicated? While some believe that Japan's uniqueness makes it impossible for others to copy its success, others in the region are led to think that what Japan has done, others along the Pacific Rim — the Koreans, Chinese, Thais — can also do. The performance of the newly industrialized countries (Hong Kong, Singapore, Taiwan and South Korea) does indeed provide ground for optimism.

THE FOUR TIGERS

The booming economies of the newly industrializing countries are part of the more general Asia-Pacific economic prosperous trend. What is specific about them though is that no other group of countries has been quite so successful. They seem to emulate Japan with their high productivity combined with low labor costs, and large trade surpluses. To describe their phenomenal economic performance, a new vocabulary has surfaced. These countries are being referred to as the Four Dragons, the Four Tigers, the new Japans, or the East Asian edge.

To fully appreciate the distance these economies have covered, it is necessary to recall their conditions some 35 years ago. Taiwan, which had been under Japanese occupation until the end of World War II, had been taken over by the defeated armies of Chang Kai-Shek, the leader of China's nationalist party. After 35 years of Japanese occupation, and then almost a decade of civil war, South Korea emerged in 1953 with

most of its industries and towns in ruins. In the early '50s, refugees fleeing communist China flooded into Hong Kong. At the same time, Singapore faced a growing communist insurgency in the Malay peninsula, and racial tensions rose between Chinese and Malays.

From the mid-'50s to the mid-'60s, the NICs underwent major changes in an effort to restructure their economies. In the process, they welcomed foreign investment, and started developing their human resources. The strategy paid off. Between 1965 and 1973, the NICs averaged an annual GNP growth rate of 10 per cent or more. From the mid-'70s to the mid-'80s, their growth rate remained at 7.7 per cent, despite two recessions. In both instances, their growth rates were stronger than Japan's and more than double that of other industrialized countries.

In the past four years, economic growth has been even more spectacular, with the NICs enjoying the highest real GDP increase in the world. Taiwan has been averaging growth

rates above 10 per cent. Hong Kong's economy has been expanding at 13.5 per cent, while South Korea's performance has hovered around 11 per cent. Such economic efficiency is unprecedented. No other group of countries, developing or developed, can match it or even come close to it. NIC growth rates are such that even a downturn would still mean a 4 or 5 per cent expansion.

Such performances have resulted in countries piling up important reserves. In 1988, South Korea, Taiwan and Hong Kong had a combined current account surplus of almost \$30 billion, almost the equivalent of the surplus of the whole European Economic Community that year. Taiwan foreign reserves stand at \$72 billion — more than Italy, France and Holland combined. Although more modest, Singapore's reserves, valued at \$16 billion, are still coveted by many industrialized countries. In terms of GNP per capita, Korea — the lowest of the four at \$3,600 — has overtaken Argentina, Brazil and Portugal. Hong Kong, the richest of the group,

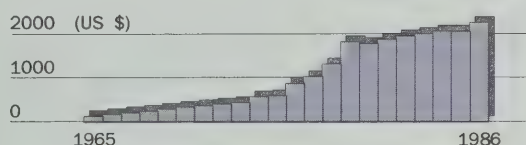


First Light Photo: Eiji Miyazawa, Japan

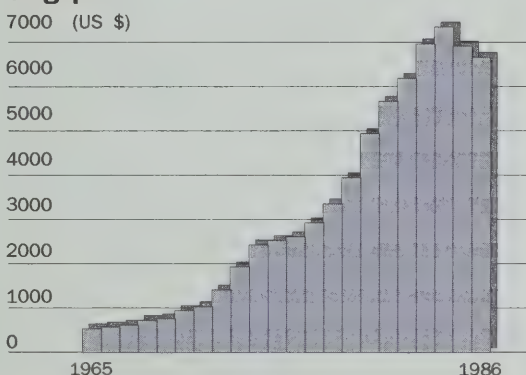
4. NIC's Gross Domestic Product

per capita

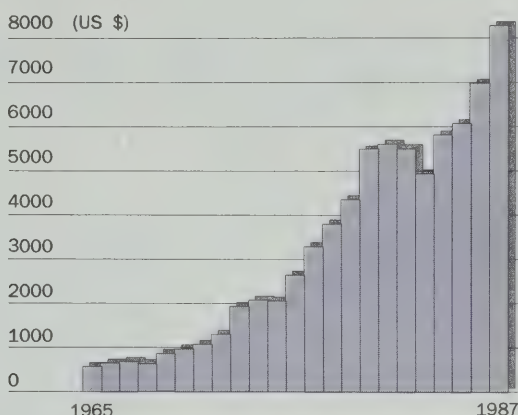
South Korea



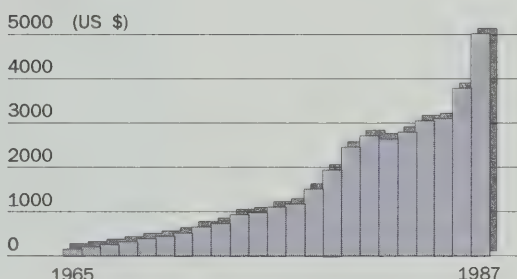
Singapore



Hong Kong



Taiwan



Source: David Housego, "New World in the Making." Financial Times Report, June 30, 1988.

has nearly caught up with Spain and Ireland.

The incredible boom in recent years is related to several factors, including sound economic management, the proximity of two major trade partners (the U.S. and Japan), high savings and technical advances in manufacturing. The rise in value of the yen has also been instrumental in their fast growth. A stronger yen has meant the redeployment of Japanese resources and major shifts in trading patterns. For the NICs, it represented a golden opportunity, a classical case of being in the right place, at the right time, with the right policies and, some would add, the right people. Their low currencies resulted in greater competitiveness of their exports in world markets, including Japan. The

NICs now export more goods to Japan than to the United States. The Four Tigers are the first developing countries to fully exploit the micro-electronic revolution.

Favorable economic trends are expected to continue in the 1990s, but problems, such as the fight against inflation, are likely to remain for some time. Open markets are also crucial to these economies. South Korea and Taiwan have large surpluses with the U.S., and are particularly vulnerable to increased protective tariffs.

Overall, the NICs have shown resilience to market shifts. This augurs well for the future. Experts believe that these economies should be able to achieve respectable and sustainable rates of growth. If protectionism can be defused, they could

assume an even greater role in the world economy.

What warrants such a cautious optimism is the fact that the Asia-Pacific region is beginning to develop an identity of its own. Its members trade with each other and invest in each other's countries much more than they did a few years ago. This trend is likely to continue. The revaluation of the yen has opened up the Japanese market to Asian goods and has increased Japanese investments in East Asia at the rate of \$6 billion in 1988 alone. At the same time, the NICs have been particularly active in investing in other ASEAN countries. With new trade and investment opportunities opening up, East Asia is likely to remain the world's fastest growing economic region.

SOUTHEAST ASIA'S ECONOMIES IN TRANSITION

Caught between two giants — India and China — lies Southeast Asia.

Geographically, the region is composed of the continental margin of Asia, and the islands and archipelagos scattered to the south and east in the Pacific. But, economically and politically, the region is divided quite differently, along conflicting ideological lines. One group consists of member-countries of the Association of Southeast Asian Nations (ASEAN), which unites Singapore, Malaysia, Thailand, Brunei, Indonesia and the Philippines. The second group comprises the communist

states of Indochina: Myanmar, Laos, Cambodia and Vietnam. Socio-economic differences between the two are so significant that they warrant separate analysis.

ASEAN: COMMON FEATURES

ASEAN countries are bound together by common features, such as economic diversification, the adoption of export-led strategies

The Association of Southeast Asian Nations

The ASEAN region has emerged over the past two decades as an example of progress in the Third World. The organization that binds together these countries has a lot to do with the region's success. The purpose of the association, created more than two decades ago, was to stimulate, through greater cooperation, economic growth, social progress and cultural development among member-countries. Its list of accomplishments is impressive. The organization has been instrumental in member-

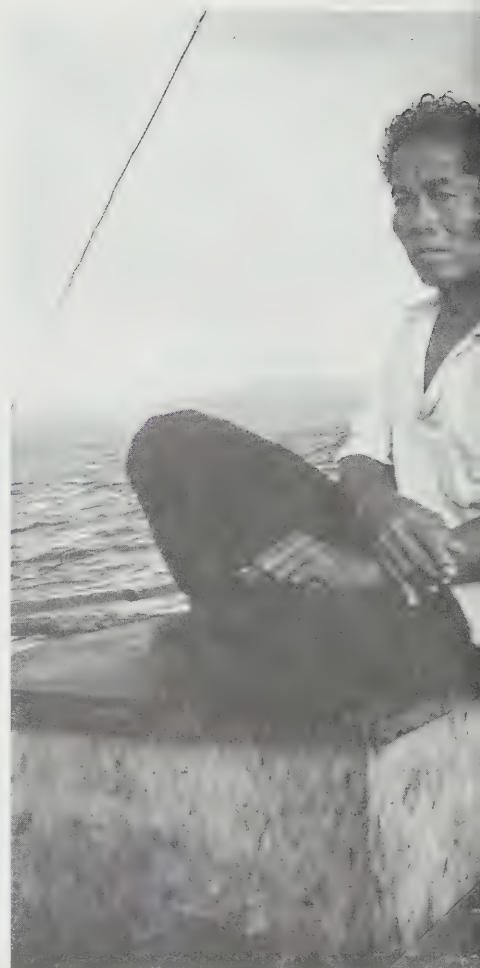
countries experiencing sustained growth rates of between 6 and 8 per cent. Major improvements have also taken place in living conditions and infrastructure, while educational opportunities and facilities have expanded significantly. Many of the activities and programs of ASEAN have contributed to the welfare of the region's population and meaningful efforts have been made in alleviating poverty and hunger. These improvements are reflected in the Physical Quality of Life

Index figures (table 5) which indicate longer life expectancy, lower infant mortality rates and higher levels of literacy.

Development in the ASEAN region can also be seen in the changing skylines of capital cities. In recent years, high-rise buildings, hotels and offices have mushroomed in response to growing needs and buoyant economies. The dynamism and potential of Southeast Asia hold out the promise of sustained growth in the next decade for its teeming and enterprising population.

and high levels of foreign investment and savings. Stability and continuity are the hallmarks of the domestic political scene. For all these good reasons, ASEAN countries are part of the fast growing markets of Asia.

In recent years, the performance of these economies has been particularly impressive, averaging 7 per cent and more — twice as much as their previous growth rates. The manufacturing sector continues to lead the recovery. In 1988, Malaysia's industrial growth rate was twice that recorded the previous year. Increased industrial output was also a major ingredient in the higher growth rates enjoyed by both Indonesia and the Philippines. The best achievement, however, comes from Thailand, where in 1988 huge increases in export goods and earnings from tourism and other services led to an impressive 11 per cent growth rate in GDP.



ECONOMIES IN TRANSITION

Following the path of the NICs, ASEAN countries have progressively adopted export-oriented development strategies, attracting as much foreign investment as possible. The strategy paid off when strong currencies pressed Japanese and European companies to relocate more labor-intensive and even high-tech operations to low-wage countries. A strong yen also meant cheaper prices for imports of electronic components from Southeast Asia, hence providing the thrust for the development of local suppliers. Simultaneously, Japanese manufacturers started to move upmarket, in higher value-added products, such as robots, semiconductors and biotechnology, leaving open new fields for ASEAN's thriving private sector. As a result, the ASEAN region is industrializing faster and exporting more manufactured products than anyone could have imagined a few years ago. Export growth rates increasing annually by 30 to 50 per cent have given way to buoyant economies.

Like the Four Tigers, ASEAN countries have relied primarily on high domestic savings to fund their development. ASEAN countries strongly believe in the virtues of capitalism, market forces and entrepreneurial spirit. Their recent growth provides striking evidence of the dynamism of the market place, responsible for their recovery. Other lessons learned recently by governments include the views that the public sector should be trimmed in order to reduce the deficit, and the cutback (if not the elimination altogether) of bureaucratic red tape that has hindered in the past private sector initiatives.

These countries have not only profited from increased wealth in the region but also from Japan's emergence as the predominant economic partner. Japan is by far the largest provi-



CIDA Photo: David Barbour, Philippines

5. Physical Quality of Life Index in ASEAN Countries

	1960	1970	1980
Malaysia	47	66	72
Philippines	60	71	73
Thailand	58	68	76
Indonesia	—	48	55

Source: Donald Crone, "ASEAN's Third Decade," in *Contemporary Southeast Asia*, June, 1987, p. 27.

6. ASEAN growth

GDP Growth (%)	1965-73	1973-80	1980-87	1987	1988
Malaysia	6.9	7.5	4.4	5.2	7.5
Thailand	7.6	7.5	5.6	8.4	11.0
Indonesia	8.2	7.2	3.6	3.4	4.7
Philippines	5.4	6.3	-0.5	4.9	6.7

Source: World Bank, "Trends in Developing Economies 1989".



CIDA Photo: Virginia Boyd, Malaysia

ASEAN countries believe strongly in the entrepreneurial spirit.

der of development assistance in the region. But, more importantly, Japanese ventures in ASEAN countries are growing faster than elsewhere. In 1988, Japanese investments surged to \$3.7 billion, an increase of 62 per cent over the previous year. In Indonesia, Malaysia and Thailand, Japan is already

the largest financier. In 1988, direct investors included Sony in Thailand; Hitachi, Minolta and JVC in Malaysia; Toyota and Asahi Glass in the Philippines. Surveys show hundreds of Japanese firms have such plans.

In addition, the ASEAN countries have been the target of huge invest-

ments from the NICs. Between 1986 and 1988, direct investment from the Four Tigers increased tenfold. In recent years, South Korea and Taiwan have set up over 230 joint-ventures in Indonesia alone. Half a dozen Korean companies are expected to invest \$1 million or more in this country. In the Philippines, Taiwan businessmen are injecting huge amounts of capital into the economy; while Singapore manufacturers are relocating their labor-intensive industries in Malaysia.

Southeast Asia is climbing the economic ladder faster than any other region, and with some major advantages over other developing groups, such as Latin American countries. For instance, the region has a much lower external debt and a larger number of skilled workers. In addition, the economies are more diversified. But, the single most important factor is that these countries can rely on increased foreign investment from Japan and the NICs, especially if governments pursue further liberalization measures to attract capital.

Thailand's basis for prosperity

Thailand is fast becoming a regional power in Southeast Asia. Of all the factors, the single most important one in the country's surging growth is the stable political background that gives investors and traders confidence. This stability is embodied in the monarchy, whose cohesive force within the Thai society is considerable. The King, as head of state, exercises legislative authority through the National Assembly, executive power through the Council of Ministers, and judicial supremacy through the courts.

His Majesty King Bhumibol Adulyadej is Thailand's longest-

serving monarch. A man of considerable personal accomplishment, the King has worked tirelessly for the well-being and prosperity of his people, touring the countryside in support of irrigation projects and similar schemes. His authority lies with the respect in which he is held by his people. And the well of affection is bountiful. The Thai people have developed a true love story with their King. For ordinary Thais, the monarch symbolizes national unity and a strong guiding influence in real and positive terms.

Also, in 1988, Thailand experienced democratic rene-

wal by electing its first leader in more than a decade. Unlike his predecessors, who were generals brought in by Parliament, Premier Chatichai heads a multi-party coalition, democratically-elected. Dubbed affectionately "Uncle Chat", the Premier's down-to-earth approach has won considerable support among Thais. Labelled by the media as a "quick-fix" premier, he has introduced several key innovations in political life, such as holding regular cabinet meetings outside Bangkok "to honor" the provinces. He is also known to give his ministers more autonomy, and he has often encouraged

them to be more imaginative in their approach. He has taken some definitive actions when necessary, such as moving quickly and decisively to ban logging nation-wide in the wake of severe floods in the south, blamed on wide-scale deforestation. But most importantly, he has gone to great length to open up trade with Indochina's communist states. His actions rest on the firm belief that Bangkok can become the hub of Southeast Asia's booming regional market. Under his guidance, Thailand is taking a front-running role, both diplomatically and economically, in the region's affairs.

THAILAND

Among ASEAN countries, Thailand has been the star performer. Thais have plenty to be proud of. A decade and a half ago, the country was marked as the next domino to fall to Indochina's communist sweep. Far from turning communist, Thailand has moved toward greater democracy and has become one of the most thriving economies in Asia. Its economic boom, which is both export-led and investment-fuelled, has earned the country the enviable title of Asia's New Tiger.

"ASEAN is the key to Southeast Asia and Thailand is the key to ASEAN."

— Victor Funnell, "New Perspectives in Southeast Asia," in *Asian Affairs*.

Thailand now reaps the benefits of being one of the most promising nations in terms of investment climate. Yet, none of this growth would have taken place if Thailand had not laid the groundwork required by the next stage of economic



CIDA Photo: David Barbour, Thailand

Irrigation projects are vital to Thailand's prosperity.

take-off. The country is politically stable, its economy is diversified and manufacturers can rely on a relatively inexpensive work force. There are no racial tensions and domestic consumption is strong.

A SOARING ECONOMY

Despite sharp fluctuations, the Thai economy has performed quite well during the past 12 years.

Thailand, Asia's new land of opportunity

The devaluation of the Baht in 1984 and the unplanned slide in the U.S. dollar since October 1985 improved substantially the country's competitiveness. The benefits appeared immediately. Manufactured exports grew by an average of 40 per cent in 1986 and 1987. The increase has been across the board, including traditional goods and new products, such as semi-conductors and other electronic commodities. A breakdown of the export pattern shows that Thailand appears to be strengthening its advantage in sectors previously held by the NICs. Garment exports

rose by 73 per cent in 1987, footwear by 73 per cent, and leather and plastic luggage by 208 and 173 per cent in 1987. Thai merchandise exports were projected to increase by an average of about 25 per cent in 1989 and 1990.

While exports are skyrocketing, the domestic market is also booming, due to rising wages and incomes. Led primarily by the private sector, gross domestic capital formation is projected to increase by 15 per cent annually in the coming years. Improved public sector performance should continue and it is expected that the

government budget will show a small surplus. Thailand has become a paradise for investors. One of the sharpest increases in foreign investment has come from Japan, indicating that Thailand has become a preferred choice in Southeast Asia for Japanese manufacturers. Nissan, Toyota, Isuzu and Mitsubishi have set up joint-ventures to manufacture and export cars and trucks. A stronger yen has also meant that companies, which formerly relied on export components from Japan, can now manufacture local parts. During the first half of 1988, 132 Japanese joint-ventures were approved, ac-

counting for 37 per cent of total foreign investment in Thailand. European companies plan to invest in 54 projects and American corporations are committed to 46 joint-ventures. The other most notable surge in investment has come from Taiwan and the other NICs. Rising costs at home as well as the recent loss of the privileges that NICs had enjoyed under the Generalized System of Preferences, have driven Taiwan companies, among others, to invest last year in some 145 projects in Thailand, the most of any single country.

7. Foreign investment in Thailand

Applications approved 1986 - 88 (Baht millions)

	1986		1987		Mid 1988	
	No.	Value	No.	Value	No.	Value
Total	148	25,211	367	54,400	410	75,740
Japan	35	14,421	130	23,548	132	28,032
Taiwan	23	2,330	100	7,309	145	6,923
U.S.	14	904	35	5,025	46	8,405
Europe	35	5,185	51	6,900	54	18,798
Hong Kong	19	1,965	31	3,334	35	2,516
Singapore	7	396	16	1,714	26	2,951

Source: *Asian Finance*, October 15, 1988.

GDP grew at an average rate of just over 6 per cent between 1978 and 1987. During that period, the economy underwent rapid structural transformation, with an emphasis on manufacturing activities. In recent years, the country's economic performance has been amazing, with a GDP growth rate of 8.4 per cent in 1987 and 11 per cent in 1988.

In addition to booming investments, a balanced performance between agriculture, industry and services accounts for this country's exceptional growth. In 1988, the agri-

cultural sector grew by 8.6 per cent after two years of stagnation caused by drought. Overall, productivity increased 6 per cent and production figures were up 17 per cent. Prices for rice, maize, sugar and rubber rose between 38 and 50 cents in 1987. This recovery in the price of primary commodities boosted personal incomes and the purchasing power of rural people, who make up 70 per cent of the Thai population.

But the driving force behind this growth lies in large increases in both exports and earnings from tourism

and services. In 1988, for a third year in a row, exports grew by more than 30 per cent. Export-oriented industries are reporting full capacity utilization. The service sector, which includes tourism and financial services, has also performed well. In 1988, tourist earnings rose 30 per cent as more than 4.5 million tourists visited Thailand.

As a result, incomes of all classes of Thais have significantly improved in recent years, to a point where they now sustain a growing domestic demand in consumer goods. Higher wages have also led to greater savings, which are funnelled back into the economy. Between 1985 and 1988, the share of domestic savings in GDP increased one-third.

PROSPECTS

Thailand's economy is likely to keep on expanding in the coming years, although at a slower pace than in 1988. However, growth will still be rapid. The manufacturing and service sectors are likely to provide the driving forces for economic growth through the end of the decade. A large work force and low wages combine to give Thailand one of the best scores in Asia in terms of wage costs and productivity. Additional benefits are also expected from intermediate goods, including petrochemicals and electrical machinery.

Another reason for optimism about Thailand's future lies in its thriving entrepreneurial class. Thailand's private sector has emerged as the growth engine for the economy, spearheading the surge of industry and exports. And now a unique opportunity may enable the country to keep on diversifying its production. Premier Chatichai has vowed "to transform the battlefields of Indochina into a market place." Thai businessmen are



CIDA Photo: David Barbour, Thailand

Thai incomes of all classes have improved significantly, contributing to more purchasing power.



CIDA Photo: David Barbour, Thailand

encouraged to lead the regional market. An agreement with Laos on border disputes has led to a flourishing bilateral trade. Trade negotiations with Burma have resulted in pending deals on wood imports. In fact, Thailand hopes to benefit from regional economic expansion, fuelled by the area's abundant natural resources and its urgent need for development. Other reasons for Thailand's competitiveness in these markets include a well-diversified economy, an experienced labor force and low inflation rates. The growth of an educated middle class is also likely to ensure stability in economic and social development. In summary, all indicators point to steady growth in the coming years.

Yet several problems confront the country. Ensuring continued competitiveness and dynamism of the export sector represents a major challenge,

as this calls for the removal of infrastructure bottlenecks in transport, communications and power. According to many, the traffic of Bangkok is among the worst in Asian capital cities. Basic industrial infrastructure (port facilities, communication networks) are overtaxed. Other problems include the trade deficit, lack of employment opportunities and widening regional disparities. In addition, the trade deficit and foreign debt are expected to rise in the short-term, mainly because of the need for imports of capital goods, required to build new factories, as well as raw materials for export-oriented industries. Employment may become a constraint, considering the large number of young people entering the labor market each year.

In the long run, problems related to income distribution and regional

disparities are likely to hamper the country's efforts. Despite outstanding performance in recent years, economic development in the countryside is seriously lagging behind urban areas, especially in the capital, Bangkok. Metropolitan Bangkok is home to 15 per cent of the total population. Yet, it accounts for 46 per cent of GDP and almost two-thirds of industrial growth. If achieved, income distribution could strengthen domestic purchasing power. Reducing regional disparities would also ensure a steady market development for the manufacturing and service sectors. Ultimately, Thailand's greatest economic challenge may be to expand and diversify its industrial output and to move to the next stage, concentrating on intermediate goods, and eventually on more capital-intensive manufacturing.

SUMMARY

The ASEAN economies are expected to continue growing at a moderate rate. Their low wage costs and their industrial capabilities will put them in a good competitive position in the next few years. Another reason for this prudent optimism lies in the growth of intra-regional trade. For the ASEAN economies moving upward in the production of manufactured goods, Japan, Hong Kong, Singapore and Taiwan all represent important consumer markets. With the opening of these lucrative trade markets, the future of ASEAN countries does, indeed, look bright.

COMMUNIST INDOCHINA

Indochina's communist countries (Vietnam, Laos, Cambodia and Myanmar) on the other hand, have many challenges facing them. Their economies are in bad shape and, in some cases, bankrupt. Despite huge efforts and concessions by the people, self-reliance — the central objective of these communist countries — has remained elusive.

These countries share characteristics common to less-developed economies. Per capita income is very low and the physical quality of life index is significantly below that of NICs and ASEAN countries. Most people earn their living from agriculture; manufacturing employing but a small percentage of the work force. Because savings and consumer spending are marginal, growth has been artificially maintained through heavy borrowing.

As a result, these countries are currently facing an economic crisis, unable to export much in the way of commodities and almost totally without a manufacturing export capability.

8. Development data for Indochina

Country	Population (millions) 1989	Infant mortality* 1989	GDP per capita \$US 1988	Literacy rate (%) 1985
Myanmar	40.8	67	220	78
Laos	4.0	106	180	84
Cambodia	8.1	127	n.a.	75
Vietnam	65.3	61	240	84

*Infant mortality per 1000 births.

Source: *World Development Report 1990*, World Bank. *The State of the World's Children 1991*, UNICEF

To step up recovery, Indochina's communist states have engaged in major economic reforms, as they have come to realize that sustained economic growth depends on trade liberalization and some measure of free market forces. With the adoption of a reform package, growth prospects in these countries have improved significantly, although inflation still remains critical. Laos and Vietnam, for instance, have been unable to control soaring prices. The latter, in particular, has struggled with the highest inflation rate in the region in the last three years. Part of the reason lies in high levels of public-sector deficits and low levels of savings. The reduc-

tion of price controls and the liberalization programs have further constrained the ability of these countries to reduce inflationary pressures. Despite some progress, inflation rates in these countries will remain much higher than in most other countries of Southeast Asia.

The communist countries of Indochina are showing signs of overhauling their economic structure. Before the end of the century, Vietnam, Myanmar and other countries in Indochina may well adopt liberalization measures similar to those of the Soviet Union and China. If so, the field of investment opportunity in Asia will continue to broaden significantly.



CIDA Photo, Vietnam

SOUTH ASIA'S EMERGENCE

South Asia, also known as the Indian subcontinent, is composed of India, Pakistan, Bangladesh, Nepal, Bhutan and Sri Lanka.



CIDA Photo, David Barbour, India

The physical geography of the subcontinent is complex, with a wide variety of landforms and climates, extending from the mountainous zone of the Himalayas in the north, to the low tropical coastal plain surrounding the peninsula. Three major river systems determine the fate of this region: the Indus in the west, the Ganges in the north, and the Brahmaputra in the east and northeast. Increased deforestation throughout the region has led to massive soil erosion, resulting in siltation of these rivers, to a point where floods occur periodically during the monsoon season, causing colossal damage in lives, crops and property.

COMMON FEATURES

Countries of the Indian subcontinent, like those of Indochina, belong to the broad category of the less-developed world. Per capita income is low, as are standards of living. Landlessness in rural areas as well as housing and unemployment problems in urban centres have reached critical levels. Overall, industrializa-

tion is lower than in other Asian countries. Illiteracy prevails, while infant mortality rates and maternal deaths are the highest in Asia. Common challenges that must be overcome include reducing population growth rates, increasing the pace and rate of investment, and improving overall efficiency.

Yet, despite overwhelming obstacles, these countries have managed to secure important gains over the past thirty years. Life expectancy has increased in all South Asian countries. Self-sufficiency in food production has been achieved or is being approached in all of them, despite rising populations. Improvements have also been noted in the number of young girls attending schools, and women's issues are gaining ground everywhere. The fact that there is still so much to be done should not veil the progress made. Although modest, these and other improvements are noteworthy in their context.

To fully appreciate their accomplishments, reference should be made to their past. With the exception of Bhutan and Nepal, all the other countries were former British colonial possessions until the late 1940s. The

impact of colonialism on these societies was so great that it altered geographical patterns, culture, civilization and economic structures. Cultural values were either ignored or scorned, while attempts at providing education remained minimal. Since independence, numerous studies have shown the degree and extent to which these economies were crippled by the subservient relationship they had with the industrial world for two centuries.

RISING NUMBERS

High population growth is a common threat to most of these countries. South Asia, with an average annual growth rate of 2.2 per cent in the first half of the '80s, is expected to remain the most heavily populated region for some decades. Its present population of over 1.5 billion will increase to some 2 billion by the year 2000 and reach nearly 2.7 billion twenty years later. Bangladesh, equal in size to the Maritime provinces, is already four times as populated as Canada. At current rates, its population



CIDA Photo: Roger Lemoyne, Bangladesh

The people of Bangladesh must cope with disastrous flooding during the monsoon season.

vels of malnutrition, lower levels of education and lower life expectancies than others. To be landless in a rural society is to be severely disadvantaged in the struggle for survival.

CHANGING THE ECONOMIC LANDSCAPE

For over three decades, South Asian countries have relied primarily on import substitution policies, as a way of fostering economic growth. These policies were set up in reaction to their previous colonial status, associated with specialization in primary commodities and agro-based industries. In an effort to protect emerging domestic industries, high import tariffs and similar restrictions were imposed on foreign products. These countries also distinguished themselves by following a mixed-economy pattern of development, that is some measure of capitalism within state-controlled development plans. This course was justified, partly because the countries' political

of 105 million is expected to double by 2020. India's population of 800 million will be close to 1 billion in ten years.

In addition to slower socio-economic development, environmental destruction and greater poverty, high population growth has also been associated with growing rural landless-

ness. In fact, South Asia has the largest pool of landless people. Bangladesh, India and Pakistan now have over 30 million landless rural households. Assuming an average of six people per family, the subcontinent's landless population is six times the size of Canada's entire population. The rural landless invariably have far higher le-

Drought and floods — twin terrors of the South Asian farmer

The dominant issue in South Asia is agriculture, the traditional source of people's livelihood and, for most economies, the largest single source of wealth. In the less-developed countries of the region, agriculture still accounts for over 50 per cent of the total GDP, provides employment for 80 per cent of the labor force and is responsible for over half the exports. In the more developed economies of India and Pakistan, major changes have taken place in the last thirty years, with the share of industry and services increasing at the expense of agriculture. Yet,

despite this transformation, agriculture remains a basic fact of life for most of the people living in the more than half a million villages throughout India.

Overall, the performance of these agrarian economies has been mixed, partly because the agriculture sector suffers from many constraints. Important among them are land resource pressures, an expanding labor force and lack of capital. But perennial drought and floods caused by monsoons, remain the twin terrors of the South Asian farmer. India, Nepal, Sri Lanka and Bangladesh

have been particularly vulnerable to natural disasters in recent years.

Drought, floods, or a combination of both, have far-reaching consequences for these rural economies. They adversely affect overall economic growth and standards of living. In the last decade, floods have cost India more than \$1 billion a year in damages alone. In addition to severe malnutrition, natural disasters often result in a slump in agro-based industries and sizeable shortages of power for all the other sectors. These calamities are also accountable for

the increase in budget deficits, curtailment of public expenditures and balance-of-payment difficulties.

Yet, the region is showing an improved capacity to cope with these disasters. While a few decades ago, the wide-ranging drought of 1987 would have caused famine and havoc in many countries, the damage was limited mostly to lower economic growth. Food production is becoming more resilient, as a result of increased irrigation schemes, higher inputs, better cropping patterns and storage facilities.

leaders were convinced that state intervention could prove crucial in reducing poverty and inequalities.

But, in many ways, the results fell short of expectations. Today, a wind of reform is blowing over the region, with South Asian economies opening up to world trade and engaging in economic diversification. Following the example of other countries in the Pacific Rim, these economies have adopted export-led development strategies, with greater reliance on market forces and foreign investment. Under this new thrust, the region's industrial sector has found new vigor and resilience. As a result, Pakistan has enjoyed a growth rate of 6.5 per cent, with exports expanding at over 11 per cent each year in value during the past decade. For India, a 13 per cent rise in exports in 1988 has enabled the economy to register a growth rate of 9 per cent, despite drought. Even Bangladesh is increasing its exports substantially, while Nepal is now selling abroad more and more of its goods. According to experts, these changes in trade and industrial policy regimes hold promise of increased economic efficiency.

INDIA

India is, by far, the largest country of the subcontinent. It is also the most populated one. In the past, periodic large-scale famines have drawn the world's attention to the plight of this drought-stricken country. Images of cattle roaming the streets, overcrowded cities, poor peasants and destitute children are all familiar to us. Yet, they represent only one facet of Indian life. Alongside the impoverished beggars and the inhabitants of urban slums coexist a high-tech, post-industrial society, led by a growing number of engineers, managers, scientists and skilled workers, whose expertise is

9. Structure of gross domestic product and employment in South Asian countries.

	Gross Domestic Product (%)		(% of Labour Force	
	1965	1988	1965	1985-87
Bangladesh				
Agriculture	53	46	84	56.6
Industry	11	14	5	10.4
Services	36	40	11	33.0
India				
Agriculture	47	32	73	62.6
Industry	22	30	12	10.8
Services	34	38	15	26.6
Pakistan				
Agriculture	40	26	60	48.7
Industry	20	24	18	13.3
Services	40	49	22	38.0
Sri Lanka				
Agriculture	28	26	56	42.4
Industry	21	27	14	12.0
Services	51	47	30	45.6

Source: *World Development Report 1990*, World Bank.
Human Development Report 1990, UNDP.

highly valued in their trade. India's computer programmers, for example, have earned the reputation of being among the best in the world. The country's software companies are

selling their programs to top American and British corporations, while Western companies are setting up software units in India, either on their own or through joint-venture



India's computer programmers are among the best in the world.

CIDA Photo: Dilip Mehta, India

Bombay — gateway to modern India



CIDA Photo: David Barbour, Bombay, India

Historically, Bombay has always been the nation's richest city, its financial capital, its most important trading centre and a pole of attraction for thousands of peasants looking for a better life. Today, home to over 8.5 million people, its population density is one of the highest in the world. The city accounts for one-fourth of the country's industry. Over half of the largest industrial

houses in India have their headquarters in Bombay. The port, the nation's largest, handles more containers than all the others combined. As a window to the West, Bombay has also evolved into a magnet for foreign investment. It alone accounts for about 15 per cent of India's total employment in industry. Almost a dozen foreign banks are active in the market place, while many multina-

tionals or subsidiaries have their head offices in this bustling city. Money is something that Bombay understands, and everyone seems to be striving for it. Even the life of the city's slum-dwellers, which Westerners find so appalling, is considered an improvement by Indian standards.

For the past six years, Bombay has been experiencing its biggest boom in a century. Trade is flourishing, the Stock Exchange expanding. Last year, it outperformed all its counterparts in the richest industrialized countries. International jewelers come to Bombay because the city has become the largest diamond cutting centre in the world. Today, estimates indicate that two out of three diamonds in the world are processed in Bombay, making it one of the most lucrative markets of Asia. An abundance of money and evi-

dence of new affluence is everywhere — in the streets, fashion boutiques, lobbies of first-class hotels, new skyscrapers as well as new apartments, where prices rival that of New York, London or Paris. The city's entrepreneurs are confident that they can produce goods of the same quality as any in the world. And their aggressive style is responsible for the opening up of new markets. But Bombay is more than simply an economic centre, it is also a media and creative arts centre. More films are made each year in this city than in Hollywood and Europe combined. Bombay's cultural and recreational facilities are among the most prestigious in the region, and the city is home to many of the largest national newspapers. Despite its congestion and its population problem, Bombay truly earns its reputation of being the Gateway to India.

agreements.

In recent years, strong economic performance has brought brisk demand, increased diversification and reduced vulnerability to bad weather. Besides enhancing its economic status, India also has improved dramatically its ability to feed its population. At times, it even exports its surpluses. Although large-scale starvation appears to be a thing of the past, poverty still remains a crucial issue.

With its striking contrasts, India remains for most foreigners one of the most complex countries in the world. What baffles most Westerners is that it is both old and new, rich and poor, strong and weak, developing and developed.

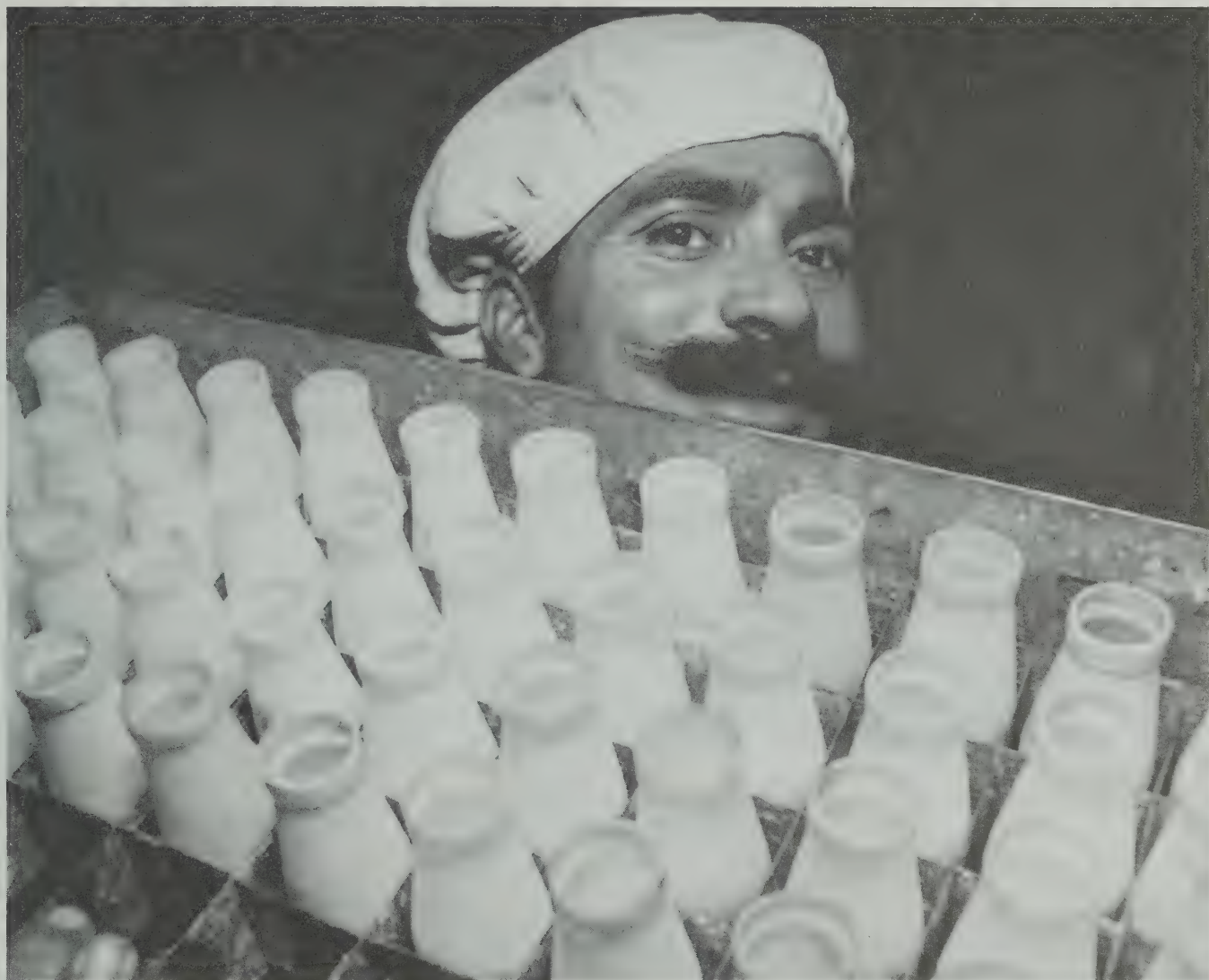
"In India, paradox is the paradigm. Despite the unyielding poverty of almost 50 per cent of India's people, its achievements remain extraordinary." — Dr. Milton Israel, *"Canada and the New India"*, *Issues, Asia Pacific Foundation of Canada, Summer 1987*.

Indeed, images of conflicting worlds abound. There is the 'old' India — its images of poverty, malnutrition and disease for several hundred million people trying to survive in a harsh environment, totally dependent on the monsoon, facing perpetual starvation. And then, there is the modern India — bustling cities like New Delhi, Bombay and Bangalore, with booming manufacturing sectors, and a large and affluent middle class. In

fact, India is so full of contrasts and regional differences, so complex and difficult to convey, that the country defies easy generalizations.

ACHIEVEMENTS AND CHALLENGES

India is both old and new. Its culture dates back 3500 years, but as a sovereign nation, India is celebrating this year only its forty-fourth anniversary. Its accomplishments in the last four decades are truly remarkable. The fact that India has maintained its existence in the face of numerous ethnic conflicts and neighboring wars is a significant achievement by itself.



CIDA Photo: Dilip Mehta, India

From the world's largest food importer, India has become a surplus producer.

The continued existence of a democratic government based on universal and free right to vote — India is the world's largest democracy — is also remarkable by world standards. Increases in food production, which has transformed the country from the world's largest food importer to a surplus producer, must also rank as one of this century's greatest achievements. And the list goes on. In the last forty years, India's progress in industrial development has rivalled that of Britain at its heyday. The Indian economy has evolved into one of the ten largest in the world, with a GNP over \$300 billion, and its trained and skilled work force is third in size only to that of the United States

and the Soviet Union.

India's proven capabilities in research and development have led to major inroads in frontier areas like nuclear energy, supersonic jet fighters and space satellites. Its high-tech industries produce advanced computers, missiles and giant turbines. Its state-of-the-art technology in telecommunications and electronics ranks India among the industrially advanced nations in the world. Its dynamic private sector is spearheaded by a well educated middle-class, six to eight times the size of Canada's population. And this affluent class supports one of the world's largest and most rapidly expanding markets. India's political and econo-

mic influence in the region makes it the contending power in South Asia. And with the fourth largest army in the world, India is also yearning for a global military role.

India's challenges, however, stand out as dramatically as its achievements. In terms of GNP per capita, India remains among the twenty poorest countries in the world. Despite significant improvements, over one-quarter of the population still live below the poverty line. Widescale malnutrition persists in some states. Notwithstanding progress, life expectancy at 55 is one of the lowest in the world. Literacy rates linger below 40 per cent and unemployment rates remain critical.

India joins the consumer boom

Foreigners are struck by India's prospering new era. Along with it, the country is experiencing an inescapable new phenomenon — the startling growth of a flourishing middle class. In the past, it appeared that there were only two classes in India: the prodigiously rich maharajahs and landowners, and the rest, who seemed to live on the border line of destitution. In reality, there has always been a small in-between class, composed mostly of civil servants, high-ranking militaries and white-collar workers, but it lacked any political or economic clout.

Today, all this is changing. The country's middle-class is progressively asserting itself

as the engine of economic growth. The new prosperity, which started in the early '80s, has given way to a new breed of Indian: confident, outward-looking, free-spending and increasingly savvy.

It is in the real estate market that the boom is most noticeable. Property prices have skyrocketed in all major urban centres. In Bombay and New Delhi, property developers have been making hefty profits speculating on land. In Bangalore, the city is bursting under construction of buildings, offices, condos and suburban houses. India's middle class market is immense, and is now unquestionably better off than ever

before. The current figure is between 150 to 200 million people. According to some forecasts, by the turn of the century about 300 million Indians will be members of the middle class. By the year 2025, it will constitute the world's biggest consumer market — double the size of America's or Japan's.

Signs of this new affluence can be found in most cities. High-priced cars are no longer the exception. Stores now carry a wide selection of expensive consumer goods, not long ago considered luxuries. And looks, say store-owners, can be deceptive: because their income is tax exempt, big farmers are

among the boom's biggest beneficiaries. This emerging middle-class, which enjoys greater political and economic clout, is spending more on homes, consumer durables and electronics. It is also travelling more, both inside and outside the country. And the stores and fashion boutiques that cater to the needs of this new clientele are finding trade most lucrative. The recent boom has brought increased competition within the domestic market. To cater to this affluent class, advertising and marketing operations have become much more professional and efficient.

A SHIFTING ECONOMY

In the past three decades, India's economic structure has had to adjust to widespread structural changes and major shifts in policies. One result of these sweeping changes is that today's India is more industrialized and less agrarian in outlook. Yet, foodgrain production has steadily increased. Agricultural productivity is now twice what it was in 1950. India has also evolved a more open economy, with greater domestic competition. These emerging trends have been reinforced by rapid growth in public administration and defence services, whose share of GDP has tripled over the last forty years. But of all the changes that have swept India, none stand out more prominently than the growth of an important middle-class and the development of an export-based industry. In a way, both are related and offer great hopes for the country's economic future.

A BOOMING MANUFACTURING SECTOR

Industry has gone through different phases. Initially, India's industrial development strategy emphasized the building-up of a capital goods sector to save scarce foreign exchange. Its leaders were eager to stress that the inward-looking import substitution strategy had been imposed by the colonial heritage and the initial conditions of the country's size, population and natural resources.

In real terms, the volume of industrial production between 1951 and 1983 grew nearly sixfold. During this period, modern industries, such as metallurgy, chemicals and electrical products have recorded higher than average growth, while more traditional trade sectors (which were fairly well developed at the time of independence like sugar, soap and tea) have registered lower than average growth rates. But the most significant change took place in the early '80s

with the development of an export-led industry. The value added in the manufacturing sector registered an annual growth rate of 6.9 per cent in the first half of the '80s, which had increased to 9 per cent by 1987. As a result, India's economy has been growing faster, with real GDP increasing well above the average rate achieved over past decades.

The recent upsurge in exports consists mainly of manufactured goods, such as garments, cotton fabrics and yarn, chemicals, engineering goods, gems and jewelry and leather products. Recently, the electronics industry has emerged as one of the leading sectors, growing at an average rate of 34 per cent between 1984 and 1987. The strong performance of these exports is related to a sharp devaluation of the rupee and the introduction of wide-ranging incentives for exports. At the same time, the country has successfully diversified its pool of customers. India's growing foreign market is the European Economic Community, which now takes up a

quarter of all the country's exports. The share of most other traditional markets, including the United States, Japan and the USSR, have declined slightly.

According to experts, the diversification of India's export base and the development of new markets hold promising prospects of a sustained industrial growth of around 7 to 8 per cent in the coming years.

FACING CRUCIAL ISSUES: FOOD PRODUCTION, POPULATION AND POVERTY

Despite significant breakthroughs in industrial goods and exports, India still remains an agricultural society with over two-thirds of its population either directly or indirectly engaged in agriculture. India's major achievement has been to reach a considerable measure of self-sufficiency in food production, despite a rapidly growing population and severe land resource constraints. India can even export food surpluses. But the availability of food has not eliminated hunger, since low income families still lack the resources to purchase as much as they need. The typical Indian peasant, whether a landless farmer or a laborer in village or city, lives on the threshold of survival.



CIDA Photo: Roger Lemoyne, India

Increased use of irrigation, pesticides and fertilizers enable farmers in India to reap expanded grain yields.

THE GREEN REVOLUTION

India's agricultural development has been shaped by different policies over the past three decades. Initially, there was an extensive phase of agricultural growth up to the mid-'60s, following the expansion of cultivated land. The second phase, initiated in 1967, coincided with the introduction of high-yielding varieties of wheat, rice and maize. The Green Revolution, as it is now called, coupled with irrigation facilities and the increasing use of fertilizers and pesticides, led to a threefold increase

in foodgrain production between 1950 and 1985. Despite these improvements, India's challenges are considerable, since it must feed a larger population on a smaller food base than the United States. Moreover, the country's growing population requires increasing grain yields, if per capita availability of food is not to decline. Just to maintain a minimal consumption level, food production must increase by more than 2.3 million tonnes each year.

In the past decades, to increase agricultural production and productivity, the government has invested large amounts of capital to expand irrigation, making India the world's largest irrigated country. However, so much still needs to be done. While some states are more productive, others are seriously lagging behind national objectives.

Despite its success, some experts claim that the Green Revolution is merely a temporary solution. The problems of agriculture, they say, have not been resolved, but merely postponed. To prove their point, they indicate several deficiencies in India's agricultural strategy. Growth in food-

The Indian village — a way of life

India has always been a village society. There are over half a million villages scattered throughout the country. These villages range in population from a few hundred to several thousand, but they all perform basically the same function: they provide the focus of life

for over 70 per cent of the population. Some villages have seen very little change for centuries, except for the concentration of wealth in the hands of a few landlords. Labor is still performed by people and animals. For those fortunate enough to own a

piece of land, farm sizes average less than five acres. Income per capita is low and landlessness is a way of life for millions. The pervasiveness of village life and the isolation of many villages has made India's progress even more difficult.

grain production, for example, has been restricted to only some regions in the country, with the result that the benefits have been limited. The Punjab alone still accounts for over 60 per cent of the country's food production. The success of the new technology has been limited to cereal crops. And there has been no breakthrough in research for evolving high-yielding varieties of other crops, like pulses and oilseeds. Finally, structural weaknesses, such as increasing landlessness, small farm sizes, lack of capital for modern inputs, and concentration of landownership are apt to hamper productivity in the long run.

POPULATION AND THE POVERTY TRAP

India is the world's second most populous country, and is growing at a much faster rate than China. Its population has doubled over the past 30 years and may double again over the next fifty. At present, India's population is increasing at an annual rate of 2 per cent, that is 15 million a year, or 40,000 every day. By the year 2000, its population will exceed the billion mark.

India's population problem is typical of less-developed countries. The death rate has been declining in the last three decades, as a result of improvements in public health, medicine and hygiene. But there has been no corresponding fall in the birth rate. Consequently, the population keeps on rising as the base expands. Many believe that India's growing numbers explain why the country is still one of the poorest in the world. India must run at full speed just to stay in place. To prove their case, they point out that India's growth averaged 3.5 per cent between 1950 and 1980, which was higher than Canada's performance during the same period. But more than half of that painfully gained

advance had to be written off, because of a 2 per cent growth in population. In other words, the population factor is responsible for a disappointing economic growth rate of 1.4 per cent. Had the Indian population remained stable since 1947, the argument goes, the gain in per capita annual income since then would be four to five times bigger than it actually is.

Indeed, all of India's problems are compounded by the country's tremendous population increase. The additional investment in agriculture and industry that is required simply to feed, shelter and clothe the additional population prevents the country from making any significant leap forward. In addition, population growth has a strong impact on the country's ability to meet basic social needs, such as education and health care. Simply providing one elementary school to the more than half a million villages is beyond India's present capability.

More importantly, the growing population has destined many to a life of deprivation. According to recent estimates, over 210 million people in India's urban slums and rural areas live below the country's rock-bottom definition of the poverty line — less than \$100 per capita per year. Despite tremendous efforts and significant achievements, India has the world's largest number of poor. One out of every four poor is Indian. Expanding the industrial base, increasing yields per hectare, extending medical care facilities and providing more schools are just some of the challenges that India must face to absorb the tide of a growing population.

Because population growth is central to all of India's development efforts, the country has adopted programs designed to curtail the growth rate. All have not been successful, although some progress has been made in curbing the birth rate. The population factor will remain a major constraint in the country's attempts to modernize its economy.

INDIA'S MIXED ECONOMIC PROSPECTS

In addition, India faces economic constraints. Although growing exports in the second half of the '80s have helped reduce India's balance-of-payments, the country must still cope with a persistent and chronic deficit. Part of the reason is that, like most Third World nations, India has lacked the resources to fund its development programs. The country has had to borrow, first at concessional terms, and when this flow declined, at commercial interest rates. In recent years, commercial loans have jumped by more than 140 per cent, with the result that both trade deficits and foreign debt have increased sharply.

The foreign debt is a cause for concern. In the last four years, it has risen by 65 per cent, exceeding \$50 billion in 1988. In the developing world, India's debt is the fourth largest, after Argentina, Mexico and Brazil. The strain it imposes on the economy can be seen in the debt-servicing burden, which has more than doubled in the last five years, from 12 per cent of foreign exchange earnings to over 26 per cent.

Despite these problems, prospects look good. In recent years, India has experienced steady economic growth and some experts predict that the country's annual growth rate might expand by 7 to 8 per cent in the next five years. In the medium term, India's biggest challenge will be turning economic growth into social gains and improved living standards . . . and there is a long way to go. Education, health and welfare still receive less than half the amount India allots to arms expenditures. The population factor and its related environmental problems are likely to compound the difficulties in the country's efforts toward progress for all.

THE PACIFIC ISLANDS: VARIATION IN DEVELOPMENT

The Pacific region, sometimes known as Oceania, is divided into three island groups: Melanesia, Micronesia and Polynesia.

The former is closest to the South-east Asian archipelagos and extends from the southeast mainland to Australia. Melanesia comprises many large islands — the Solomon Islands, Vanuatu, Fiji, New Caledonia and Papua New Guinea, the largest. Micronesia consists of several volcanic islands and small coral atolls, located in the north, central and west Pacific, including Kiribati, Nauru, the Trust Territory of the Pacific Islands (the Marshalls, Marianas, and Gilbert Islands) of which Guam is the largest. Polynesia covers the greatest area, from Hawaii in the north to Easter Island in the southeast, to New Zealand in the southwest, and includes Samoa, Niue, Cook Islands, American Samoa, Tokelau Islands, Tonga, Tuvalu, Wallis and Futuna, and French Polynesia.

Levels of economic development vary considerably. Micronesia and Polynesia have higher standards of living, but except for Nauru, none are



CIDA Photo: Hélène Tremblay, Solomon Islands

economically independent. Melanesia has among the lowest levels of economic development in the world. Subsistence farming is the main activity, with commercial agriculture relying on coconuts or sugar cane as major cash crops. Fishing, also a major activity, is divided into subsistence and commercial fishing. While the former activity has been practised for centuries by individuals, families or village groups for local consumption, commercial fishing — particularly tuna fishing — is a recent development. Until the '70s, large-scale commercial fishing was undertaken by foreign vessels (mostly from Japan, Taiwan and Korea)

largely because the local islands lacked modern technology. This situation prompted some of these small island-nations to develop their own operations. Fiji, the Solomon Islands, Kiribati, Tuvalu, Western Samoa and French Polynesia are among those that have set up their own commercial

fleets. With the institution of the 200-mile exclusive economic zone, the fishing industry of these islands has the potential to become a major source of employment and earnings.

The islands of Oceania must overcome the same challenges as other micro-states. They are scattered across the Pacific Ocean and isolated from the rest of the world. Transport costs are often prohibitive. Their isolation is further increased by their small size which limits seriously the development of major manufacturing or other processing activities. Moreover, these economies rely mostly on exports of basic agricultural commodities, such as coconuts, coffee, cacao, or sugar cane, whose prices have hit rock-bottom levels in recent years.

...these economies rely mostly on exports of basic agricultural commodities, such as coconuts, coffee, cacao, or sugar cane, whose prices have hit rock-bottom levels in recent years.

coffee, cacao, or sugar cane, whose prices have hit rock-bottom levels in recent years. As a result, these areas have had little opportunity to share in the development found in the newly industrialized countries of South-east Asia.

Over the last decade, the econo-

mic performance of the developing Pacific islands has largely been determined by the persistent volatility in the price of primary commodities, and adverse weather conditions. In



CIDA Photo: Hélène Tremblay, Samoa

the mid-'80s, most Pacific island-states suffered setbacks, as commodity prices plummeted. Real GDP declined by over 8 per cent in the Solomon Islands, Papua New Guinea, Samoa and Vanuatu. Fiji, however, was the exception with a GDP increase of over 9 per cent in 1986, largely because of its thriving tourism industry.

Prospects for recovery are reasonably good as world commodity prices pick up. Major reforms in economic policies have also helped bring back investor confidence. Greater technical and economic assistance from the international community has also been vital in the recovery process of many Pacific islands economies.

"The islands of the Pacific world are in the unenviable position of being caught in the dilemma of development. Faced with exposure to the

consumer-oriented, wealthy life-style of the West through their status as dependent Trust Territories and tourist destinations, they have little in the way of apparent resources to avail themselves of economic development. The way in which they meet this challenge may well determine the relative affluence and importance of the Pacific in the years to come."

— R.H. Jackson and L.E. Hudman in *World Regional Geography*, J. Wiley & Sons, New York, 1986, p. 422.

PAPUA NEW GUINEA'S RECOVERY

Papua New Guinea is the largest country in the Pacific island subregion. With over 3 million people, it is also the most populated. In the early '80s, the second oil shock and the resulting worldwide recession severely affected the economy, which grew at an annual growth rate of 2.5 per cent, barely above the population growth rate. By 1985, recovery was underway, and the economy has since expanded at an average rate of 4.6 per cent, largely because of growth in exports, particularly in the mining sector. Cash crops,

which account for about 20 per cent of GDP, have also recovered under rising prices for coffee, cocoa and copra.

These two factors have combined to improve considerably the country's foreign trade balance. In 1988, PNG registered its first trade surplus, and prospects for economic growth remain reasonably favorable. Export earnings will likely support an annual GDP growth rate of about 4 per cent in the coming years. With imports rising slower than exports, PNG should maintain a growing trade surplus, which will enable the country to reduce its external debt to about 75 per cent of GDP.

Despite these favorable economic trends, the country will continue to face serious employment problems, because of slow economic growth in the non-mining sector and a growing labor force. Medium-term economic prospects largely depend on the performance of the mining and cash crop sectors as well as the success of the new policy reforms introduced this year, which aim at creating employment and reducing regional income disparities. Over the long-run, sustained economic growth will rest on the country's ability to attract foreign investment and overcome some of its key structural weaknesses.



CIDA Photo: Graham Sim, Papua New Guinea

Part 2: Social Development, Population and Environment

It is now widely recognized that development is more than simply economic growth. Development is first and foremost about people, their aspirations, and how they use their resources, skills and creativity in improving their living standards. Nowhere in the developing world has this been recognized as clearly as in Asia. The region owes much of its strength to a healthy, educated and productive labor force.

Part Two of this document looks into some of the major gains achieved in health, education and integrating women into the mainstream. It also probes some of the complex links between population, resources and the environment.

For the purpose of understanding, the various factors are examined separately. However, the reader should bear in mind that they are intricately linked, influencing one another through a dynamic process. For instance, studies have confirmed a strong co-relation between the education of women and trends in the decline in fertility and infant and child mortality, better nutrition, greater use of health facilities and stronger economic productivity. Likewise, population pressures, food production and urbanization trends have far-reaching consequences for the environment.

Female primary enrolment ratios in Sri Lanka are among the highest in South Asia.

CIDA Photo: Dilip Mehta, Sri Lanka



THE DEVELOPMENT OF HUMAN CAPITAL

HEALTH

Health — it is much more than just the absence of disease. Health is the delicate balance that enables an organism, be it animal or human, to function at full capacity. From a community viewpoint, this balance exists when most people in a society are in good health, are capable of contributing to development and can provide for the needs of the less productive members of the population, such as children, the sick and the elderly.”

— Development, “Health”, Winter 1988-89, CIDA.

Asia has made tremendous progress in supplying people with the basics of health.

Over the past decades, most Asian countries have gradually expanded their health care systems to cover an increasingly wider section of the population. Overall figures show that more than 70 per cent of Asia’s infants and pregnant women now have access to health care. Consequently, the health status of the population has improved significantly, with a matching steady decline in mortality rates. Some of the factors responsible for the progress made so far include increased health facilities, greater reliance on health personnel and training, community medicine and access to health care. Water and sanitation programs have

been stepped up, and significant gains have been made in food supply and nutrition. Yet, progress has been uneven. While some countries have made spectacular breakthroughs, others are consistently lagging behind. Delving into main health indicators provides us with a better view of some of the challenges at the subregional level.

East Asian countries have made the most spectacular advances. Over 90 per cent of their populations have access to basic health services. The maternal death rate has declined substantially. Infant mortality rates have been halved, while life expectancy has increased on average by 10 to 15 years in the last two decades. Even

China has made some significant progress, building up in the process an extensive network of health care facilities and personnel, particularly in the field of family planning and maternal and child health.

Southeast Asian countries have also expanded their facilities considerably, with the result that over two-thirds of the people can rely on basic health services. In Burma, the infant mortality rate was cut by half between 1970 and 1984, and life expectancy at birth increased from about 55 years to about 60 years during the same period. With health facilities at all levels being oriented to community activities, significant pro-

In Bangladesh, Nepal and Bhutan, less than 45 per cent of the population have access to basic health services.



More than 70 per cent of Asia’s infants and pregnant women

gress has been made in Thailand and Malaysia, where the infant mortality rate for children under five dropped by two-thirds in the last two decades. Indonesia has cut in half infant mortality rates, but these remain high, especially in rural areas. Major efforts are underway to reach remote areas of the country. Hundreds of thousands of health workers have been mobilized to set up 133,000 village health posts, which may provide parents with the means to reduce the 1980 child death rate by 50 per cent or more by the end of the decade.

In South Asia, despite progress, the health and mortality situation remains unsatisfactory. In Bangladesh, Nepal and Bhutan, less than 45 per cent of the population have access to basic health services. In Pakistan and India, the figures are slightly higher, with over half the population now relying



CIDA Photo: David Barbour, Philippines

ess to health care.

on basic health care coverage. In most countries, with the exception of Sri Lanka, female and infant mortality rates are consistently higher than in other subregions.

The quality of health care varies widely in the Pacific islands. The region is plagued with a serious lack of health care facilities as well as trained

personnel in remote areas. Infectious diseases like malaria, measles and intestinal diseases remain major illnesses. These diseases are aggravated by poor nutrition and inadequate immunization programs. As elsewhere, it is the children and old people who are most at risk. Infants are particularly susceptible to diarrheal diseases.

Poor health in paradise islands

According to a recent UN report, Pacific islands display some of the world's most rapidly increasing rates of malnutrition. The switch from traditional food to Western food imports is largely responsible. Children are most affected by these trends. In the

early '80s, a study showed that 23 per cent of children in Fiji suffered from protein deficiency. Nutrition programs were set up immediately by local governments. Meanwhile, voluntary groups began promoting family planning and health education in an effort to

reduce malnutrition and population pressure. Along with programs to increase the availability of clean water, better sanitation and proper immunization, these efforts are having a small but positive effect on the development of health care in the islands.

CURBING INFANT MORTALITY RATES

The health status of infants and children is indicative of a society's quality of life. During the last decade or so, in most countries of the region, infant mortality rates have declined substantially, as table 10 illustrates. The most consistent downward trend has been observed in Myanmar, Bangladesh, China, Indonesia, Thailand, India and Sri Lanka. Nevertheless, rates remain high in most South Asian and Pacific island-countries.

Despite efforts, the target for the year 2000 of an infant mortality rate below 50 per 1000 live births and a life expectancy over 60 years for all Asian countries may never be reached. Experts express doubts as to whether countries such as Bangladesh, Pakistan, Nepal, Bhutan and Laos will be able to attain the objective, unless major changes are brought to the delivery of health programs.

LIFE EXPECTANCY

All countries have experienced improvements in life expectancy. Overall, Hong Kong, Singapore and Japan, have achieved an average life expectancy at birth of more than 75 years for females and 72 for males. These figures are in sharp contrast with the ones reported in Bhutan and Nepal, where life expectancy at birth hovers between 45 and 50 years, up about 11 years over the 1960 figure. People in Bangladesh, India and Indonesia have a life expectancy between 50 and 60 years, while in Myanmar, Sri Lanka and Thailand it averages between 60 and 70 years. Among developing countries that have reported life expectancy at birth by sex, Indonesia and Thailand re-

10. Infant mortality in selected countries of Asia and the Pacific

(per 1000 live births)

Country	1960	1989	1995-2000*
Bangladesh	156	116	96
Bhutan	187	125	109
China	150	31	23
Fiji	71	26	20
India	165	96	77
Indonesia	139	73	64
Laos	155	106	74
Malaysia	73	23	15
Myanmar	153	67	49
Nepal	187	125	99
Pakistan	163	106	79
Papua New Guinea	165	58	42
Philippines	80	44	35
South Korea	85	24	18
Singapore	36	8	6
Sri Lanka	71	27	24
Thailand	103	27	27
Vietnam	156	61	45

* Projected rates

Source: *United Nations World Population Prospects 1988*, New York 1989.
The State of the World's Children 1991, UNICEF 1990

ported a longer life expectancy for women than men, while India and Nepal reported the reverse.

spread education to rural areas, where most of the people lived.

Since independence, Asian coun-

tries have invested considerable efforts in correcting deficiencies of the colonial legacy. Indonesia, for instance, started the postwar era with a 20 per cent literacy rate, but has managed to triple it since. The creation in all countries of national school systems, with equal opportunity for all, stands out as a striking achievement.

Access to education increased considerably throughout the '60s and '70s. During that period, the total number of young people enrolled in schools at the primary, secondary and tertiary levels doubled to around 450 million in the early '80s. Likewise, the number of children of primary school age out of school dropped dramatically.

Regional trends

Educational programs in Asia have operated within a policy framework that has promoted the extension of educational opportunities. However, economic and social realities and gender role assumptions in many countries have hindered the achievement of policy goals and targets.

Recent data on educational achievement in Asian countries confirm sub-regional trends. Generally, the levels of schooling in Japan and the NICs are

EDUCATION

Historical perspectives

Asian countries' efforts in education were influenced largely by the colonial era dating back to the 17th century. For more than two centuries, education in most countries was selective, stratified and tied to a reward system through employment in public service and colonial administration. In India, Southeast Asia and Indochina, no real efforts were made by the colonial powers to



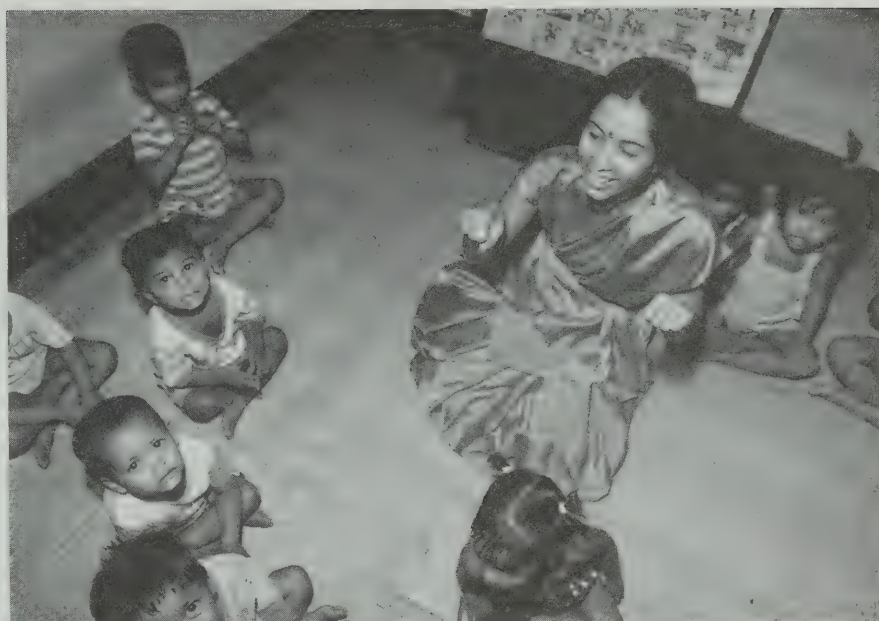
CIDA Photo: Roger Lemoyne, India

the highest in the region. In both cases, family and society place a high premium on education. The substantial efforts invested by the NICs to achieve a uniformly high level of schooling are truly noteworthy. Among them, South Korea and Taiwan stand out as having made the most remarkable progress in raising the level of education of their people. It is significant to note that these countries have extended compulsory

11. Key indicators of education in selected Asian countries

	Adult literacy rates 1985	% of age group enrolled in primary school 1987
	Total	Total
Bangladesh	32	59
Bhutan	32	24
China	68	132
Fiji	86	129
Hong Kong	88	106
India	44	98
Indonesia	72	118
Kiribati	96	100
South Korea	95	101
Laos	84	111
Malaysia	74	102
Myanmar	78	81
Nepal	22	82
Pakistan	26	52
Papua New Guinea	31	70
Philippines	88	106
Singapore	86	116
Sri Lanka	87	104
Taiwan	89	100
Thailand	91	95
Tonga	78	100
Vietnam	84	102

Source: *The State of the World's Children 1991*, UNICEF. *World Development Report 1990*, World Bank.



A daycare centre in Bangladesh.

CIDA Photo: David Barbour

basic education to include secondary education. As a result of popular demand, governments have increased their spending on education as a percentage of GNP over the last decade, with the result that very large increases in educational spending were recorded. The huge investment in expanding high quality secondary and university education is consistent with their economic strategy of developing and producing sophisticated, world market competitive goods and services, with greater reliance on local engineering and innovative management.

Southeast Asian nations are following a similar path. Most countries have achieved full enrolment rates in primary education, while the gross enrolment ratio for lower secondary education has been raised to 50 per cent. This is especially true for the Philippines, Sri Lanka and Malaysia, where mean years of schooling are close to those achieved by the NICs. Thailand and Indonesia have also made tremendous efforts in raising the level of education of their labor force, but there still appears to be a need for improvement in completion rates. Burma and Vietnam have been successful in promoting literacy.

Vietnam, in particular, has reached relatively high gross enrolment levels in primary and secondary schools.

With the exception of Sri Lanka, South Asian countries do not compare favorably with either Southeast Asian countries or the Pacific island-states in terms of mean years of schooling. Nonetheless, the improvements should not be disregarded. In India for instance, the proportion of the labor force with no formal education dropped by one-third between 1961 and 1981. Gross enrolment ratios in primary schools jumped from 74 per cent in 1965 to 92 per cent in 1985. The ratio in Bhutan primary schools more than tripled, while that of Nepal quadrupled.

Both Pakistan and Bangladesh face huge constraints, with the result that gains were more modest: in 1986, less than 60 per cent of children were attending schools. Both must cope with the lowest levels of educational enrolment, and the highest growth in its school age population. A top priority for these countries is to extend primary education to rural areas, where education is still of poor quality and secondary enrolments are relatively low.

At the time of independence, India

Culture, religion and literacy

Social, religious and cultural values acquired through family and society are the crucial factors in human resource development. Together they influence the entire range of people's attitudes toward work, excellence and savings.

Religious teaching,

for instance, has been an important source of learning throughout Asia. In most countries, the tradition of education dates back to the very beginning of their history and is closely associated with the great religious and moral systems which shaped the cultures and

civilizations of Asia.

The teaching of children in Buddhist temples helps explain the relatively high literacy rates found in the '60s in Thailand, Sri Lanka and Myanmar. Such traditional teaching included not only reading and writing but also simple arithmetic.

high mortality rate as a result of too many pregnancies, and poor health care. In most countries, women have traditionally been powerless.

But things have been changing rapidly, although unevenly. In recent decades, women of Asia have emerged as a dynamic social force, and have made much headway in various employment fields: professional, industrial, religious, business, legal. Inroads were made even in the political field, where the presence of a growing number of women as heads of state has not gone unnoticed. In 1966, Indira Gandhi was sworn in as India's first woman Prime Minister. In 1986, Corazon Aquino was elected the Philippines's first woman president. Benazir Bhutto became the first female prime minister of an Islamic country. In Myanmar, the struggle for democracy revolves around Suu Kyi, a young charismatic leader.

In most countries, women play a vital role in national development. In the cities, they dominate the informal economy as street vendors, small manufacturers, craftmakers and suppliers of various services. In rural areas, they play a considerable role as

faced an enormous task of schooling large and diverse populations. In the last four decades, the country has managed to increase primary schooling, with the result that over 90 per cent of children now have basic education. The task of reaching adult people has proved more difficult. Adult literacy is still low at 42 per cent, with illiteracy among women around 70 per cent.

The situation in Nepal, Bhutan and Laos exhibit common features. They have low adult literacy rates, as most women are denied access to education. These countries also display low enrolments in primary and secondary school, and drop-out rates among children attending school are significant. In addition, their school-age population is growing relatively fast.

Over the last decades, enrolment ratios have improved significantly throughout the region. Unfortunately, enrolment ratios do not say much about the real numbers of school-age children who actually remain out of school for a variety of reasons. Experts point out that despite the progress made, far too many young people are and will continue to be excluded from formal education. In the early '80s, 29 per cent of the population aged 6-11 years in developing Asia were outside school. Such figures are influenced by the poor performance of South Asian countries, where the absolute number of young people out of school is expected

to increase over time well beyond the year 2000. The same is true for the absolute number of adult illiterates, which is expected to increase as a result of high population growth.

ASIA'S WOMEN AT WORK

For centuries, the general status of women in Asia has been one associated with dependence and docility. The predominance of males, in most Asian cultures, had a lot to do with the lower status of women, their

12. Women in Asia — a partial snapshot

	India	Nepal	Pakistan	Thailand	China	Philippines
GNP/capita US\$ 1988	340	180	350	1000	330	630
Adult literacy rate (%) 1985						
women	29	11	18	87	55	87
men	58	34	43	95	80	88
Gross primary enrolment ratio (1986-88)						
girls	81	47	28	n.a.	140	105
boys	113	104	51	n.a.	124	107
Women labour force as % of total labour force (1988)						
	26	34	12	45	43	32
Life expectancy (years, 1988)						
women	58	51	55	68	66	66
men	58	52	55	63	69	62

Source: *World Development Report 1990*, World Bank. *The State of the World's Children 1991*, UNICEF. *Human Development Report 1990*, UNDP



CIDA Photo: Pat Morrow, Nepal

agricultural laborers. According to a UN study, women are responsible for 60 to 80 per cent of food production in the region. Yet, most often their contribution is either underestimated or ignored.

The status of women in Asia is complex and varies according to economic, social and cultural factors. Thus, major distinctions must be made, not only between women in more developed and less-developed economies, but also between women in urban and rural areas. Throughout the region, industrialization and the growth of employment opportunities in urban centres have enabled women to break through tradition-bound barriers. In most countries of East and Southeast Asia, for example, urban women enjoy approximate parity with men in terms of educational opportunities. In rural areas, however, women rarely share the same opportunities, with the result that

even in these industrializing countries in this subregion up to 50 per cent of girls have no access to formal education. Notable exceptions include the Philippines, Malaysia and Thailand. In less-developed economies, female illiteracy figures are even higher.

REGIONAL TRENDS

East Asian countries have made the most remarkable progress in integrating women into the mainstream of their economies. Japan's experience is meaningful in this respect. Among the significant changes in this country at the end of the war was the status of women. Once regarded as inferior, second-class citizens of a deeply entrenched patriarchal society, Japanese women have moved into the mainstream, experiencing in the process major changes in their

life-style. Most active in the work place, Japanese women are visible in farms and factories, schools and hospitals, parliament and local politics, business firms, and as wage-earners. Women have been appointed as ministers and play an increasingly active political role. For the first time in the country's history, a woman, Takako Doi, is at the helm of Japan's socialist party. Her party got 22 successful female candidates elected in the 1989 Senate elections, a first in Japan's history. Despite such progress, resistance to change is considerable. According to a recent government survey, more than a third of women and half of men still believe that a woman's place is in the home.

The rapidity with which the NICs have turned their war-torn economies into progressive, modern societies is reflected in the changes in the status of women. Enrolment rates for girls in primary education are close to



CIDA Photo: David Barbour, Philippines

Filipinas have the highest educational level of all Asian women and the highest labor force participation rate.

100 per cent, while at the secondary level, enrolment rates tend to equalize, and in certain places such as Hong Kong, Japan or Singapore, the rates for females exceed those of males. As a result, women now enjoy careers as executives, artists, writers, professors, physicians, architects, judges, legislators and other professionals.

The situation of women in South-east Asia has improved significantly in recent decades. Most countries have succeeded in attaining gross female enrolment ratios in excess of 90 per cent at the primary level, thus narrowing the gap between the two sexes considerably. Part of the success lies in the cultural setting, often favorable to women. In the Thai culture, for instance, men and women are equally important. They share work and eat side-by-side. Traditionally, women had leadership roles in earning family income, in providing community health care and in education. In Malaysia, female participation in the independence movement of the '40s was crucial to its success and to nation-building. In the Philippines, women actively participate in the economic

and social life of the country. Filipinas have the highest labor force participation rate and the highest level of education of Asian women. In urban areas, women make up nearly half the manufacturing work force, 52 per cent of the service sector and 66 per cent of the trading sector.

Yet, despite progress, women are far from equal with men. Even in modern economies, where major advances have been made, women still face discrimination both in wages and hiring practices. Often, their work is strenuous, and they receive lower

pay. At best, they earn two-thirds of the wage of men doing similar work, and tend to be restricted to jobs dominated by women the world over — textiles, food services, small manufacturing and handicrafts.

"Despite their increasing participation in the labor force, the pattern of women's employment has changed little over the years. Even today most women workers have only a limited range of job opportunities and are engaged in occupations characterized by low skills, low productivity, low wages and hence low status."

— S. Selvaratnam, "Population and Status of Women," *Asia Pacific Population Journal*, vol 3, no. 2, June 1988, p. 14.

In spite of tremendous efforts, parity in education still remains an elusive goal in most South Asian countries, owing to historical and religious factors. Significant disparities in the male-female enrolment statistics persist. Governments' efforts are confounded by centuries-old prejudices and social attitudes. With the exception of Sri Lanka and some states of India, female primary enrolment ratios remain low. As a result, female illiteracy is a major problem. Four out of five South Asian women over 25 years old have no education at all. The problem is particularly acute in rural areas.

Inroads have been made, but the great majority of women are allowed only a limited role in economic development. Yet, their full participation is crucial for the development process. This participation can be achieved only if serious efforts are made to eliminate discrimination and remove obstacles to their advancement in education, training and employment. The examples of Sri Lanka and Kerala in India, both rural settings, clearly show that when barriers are eliminated and women are brought into the mainstream, a noticeable improvement takes place in the content and pace of development as well as in the quality of life of the entire community.



CIDA Photo: David Barbour, Philippines

POPULATION, FOOD PRODUCTION AND URBANIZATION

Most experts agree that it is through population growth, more than any other factor, that mankind is shaping its future.

And nowhere is it closer to the truth than in Asia, where the population issue is central to understanding the region and the issues facing it.

THE RAPID MARCH OF THE BILLIONS

Asia had an estimated population of 2.8 billion people in 1985, up from 1.4 billion in 1950. Progress through better medical techniques, health and nutrition has led to dramatic declines in infant mortality and longer life expectancy. The decrease in mortality without matching declines in fertility have resulted in the march of the billions. China and India, for instance, have doubled their populations in the last forty years. By the year 2000, Asia will account for nine of the world's 15 most populous nations. For the region as a whole, the projected increase in population, unique by historical standards, would represent a 72 per cent increase in 45 years from 2.6 billion in 1980 to 3.6 billion in 2000 and to 4.5 billion in 2025.

Asia's current population — estimated at three billion people —

represents both a triumph and a challenge. A triumph over high infant mortality rates, of rising agricultural production, rising employment and greater welfare. At the same time, these triumphs pose some impressive challenges, such as reducing high population growth rates, expanding agricultural production, providing jobs for the labor force, and meeting the new challenges of environmental protection.

"Asia's population in 1980 was greater than that of the world in 1950; by the year 2000, it will nearly equal that of the world in 1970; and by 2025 it is expected to exceed that



CIDA Photo: Roger Lemoyne, Bangladesh



CIDA Photo: David Barbour, India

of the world in 1985."

— M. Williams, *Population in Asia and the Pacific, The Far East and Australasia*, Europa Publications, 1988, p. 9.

"These daunting population trends will affect life and work styles, family concepts, social mobility and migration and might lead, as some observers predict, to unprecedented tension within and among developing countries, as well as between the developing and industrialized world."

— *Education and Development in Asia and the Pacific*, Asian Development Bank, Manila, 1988, p. 18.

CURBING POPULATION GROWTH

Over the past decades, family planning in Asia has made major advances. Aware of the consequences of uncontrolled population growth, community leaders and governments have long promoted family planning, emphasizing its vital importance for Asia's future. As a result, a number of countries have already begun to lower their population growth. Between 1960

Thailand's success story in family planning



CIDA Photo: David Barbour, Thailand

Thailand is known, along with China and Sri Lanka, for its exceptional performance in improving life expectancy, lowering infant mortality rates and reducing birth rates.

In the early '70s, Thailand's population growth rate averaged over 3.3 per cent. By 1985, the rate had declined to 2 per cent, and is expected to hover around 1.3 per cent by 1991. This decline is one of the most significant ever achieved in a developing economy. What makes it even more remarkable is that it was accomplished through voluntary measures only.

A number of factors have made the transition possible. Important among them is the Thai culture which fosters a relatively egalitarian status for men and women. For example, there is no strong preference for sons as there are in many other societies; literacy among Thai women in the reproductive age is close to universal, and labor force participation rates are high. Religion has also been a significant factor in the family

planning success. Much of the Thai value system derives from Theravada Buddhism, the religion of over 90 per cent of the population. Buddhism does not oppose the concept of limiting birth to improve the quality of life. In fact, there are no prohibitions against contraception, and values and behavior reflecting individualism and freedom of action are encouraged. Other factors include rapid social changes, which have encouraged couples to have fewer children, and the organized efforts to provide modern contraceptive methods to all.

Thailand's family planning program blends distinctive features. The close coordination between government and community-based organizations, the early integration of family planning within existing health services, and the flexibility and innovation of the program have strongly contributed to its success.

A number of private organizations have also played a significant role in the country's efforts to reduce population growth. Most important

among these is the Population and Community Development Association (PDA) which has been active in promoting and delivering family planning services as well as assisting primary health care, rural development, water resources, food marketing and small-scale industries. Underlying all the activities of the country's largest private non-profit organization is a firm belief that individuals are capable of determining and meeting their own needs when given the opportunity. Under PDA, the history of family planning has been one of constant expansion.

One man, in particular, stands behind the success of this organization — secretary-general Mechai Viravaidya. His name is a household word in Thailand, where condoms are commonly called *mechais*. His relentless work, communication skills, vision, and the team he has gathered is very much responsible for the country's success in cutting in half its population growth in just 15 years. The fact that today

some 70 per cent of Thai couples practice family planning, has a lot to do with the efforts put forth by this organization.

Central to Mechai's strategy was to make condoms seem fun. With humor and showmanship, he has judged condom-blowing contests, sponsored 'vasectomy festivals' and handed out T-shirts with such slogans as "A Condom a Day Keeps The Doctor Away" or "Stop At Two." The same catchwords were printed on lighters, matchbooks, pens and a variety of other inexpensive but useful items. The family planning key ring with a condom that beckons "In case of emergency, break glass," is a popular item in Southeast Asia. Following up the humor is a concerted educational program to help people move on to more sophisticated ways of improving their lives.

Within the region, PDA has become a centre of excellence for the sharing, exchange and transfer of experience in community-based fertility and development management. PDA is known for its innovative ways of getting things done. To support its child health centre, the organization opened a restaurant in Bangkok called Cabbages and Condoms, the only such establishment where a vasectomy, say the owners, can be performed between courses. PDA'S strategy of reaching out and getting people involved is now being successfully applied to integrated rural development projects and conservation schemes with impressive results.

and 1987, most had achieved fertility declines of 20 per cent or more. Even India reduced its birth rate by one-fifth. But, the population situation in Asia is as complex as the region itself.

In broad terms, growth rates differ according to subregional patterns, with East Asia showing the sharpest decline in fertility. Overall, the region's growth rate, after peaking at 2.2 per cent in the '70s, now stands at 1.2 per cent and is expected to drop below 1 per cent by the year 2000. Thus in all of these countries, including Japan, fertility is below replacement level or approaching it. Among the NICs, Singapore, Taiwan and South Korea show the greatest falls in fertility rates — between 65 to 75 per cent. Unfortunately, the NICs account only for a tiny proportion of Asia's population. Of the larger countries, China leads the way with a drop in the fertility rate of 56 per cent over the last decade.

In Southeast Asia, birth rates have declined significantly. This region is probably the best candidate to join the ranks of low population growth in the near future. Most countries have begun the transition to lower fertility, but the young age composition means that considerable growth continues. Two countries in particular, Thailand and Indonesia, stand out as having made spectacular progress in reducing their growth rate. Both have good family planning programs, with over two-thirds of the population now practising contraception. As a result, population growth has fallen below 2 per cent.

The prospects for South Asia, however, are in sharp contrast, and, according to experts, quite alarming. It is already the most heavily populated region in the world and is likely to remain so for some decades. Bangladesh, India and Pakistan, for example, may double their populations from around 960 million in the mid-'80s to 1.9 billion in probably little more than 30 years and reach nearly

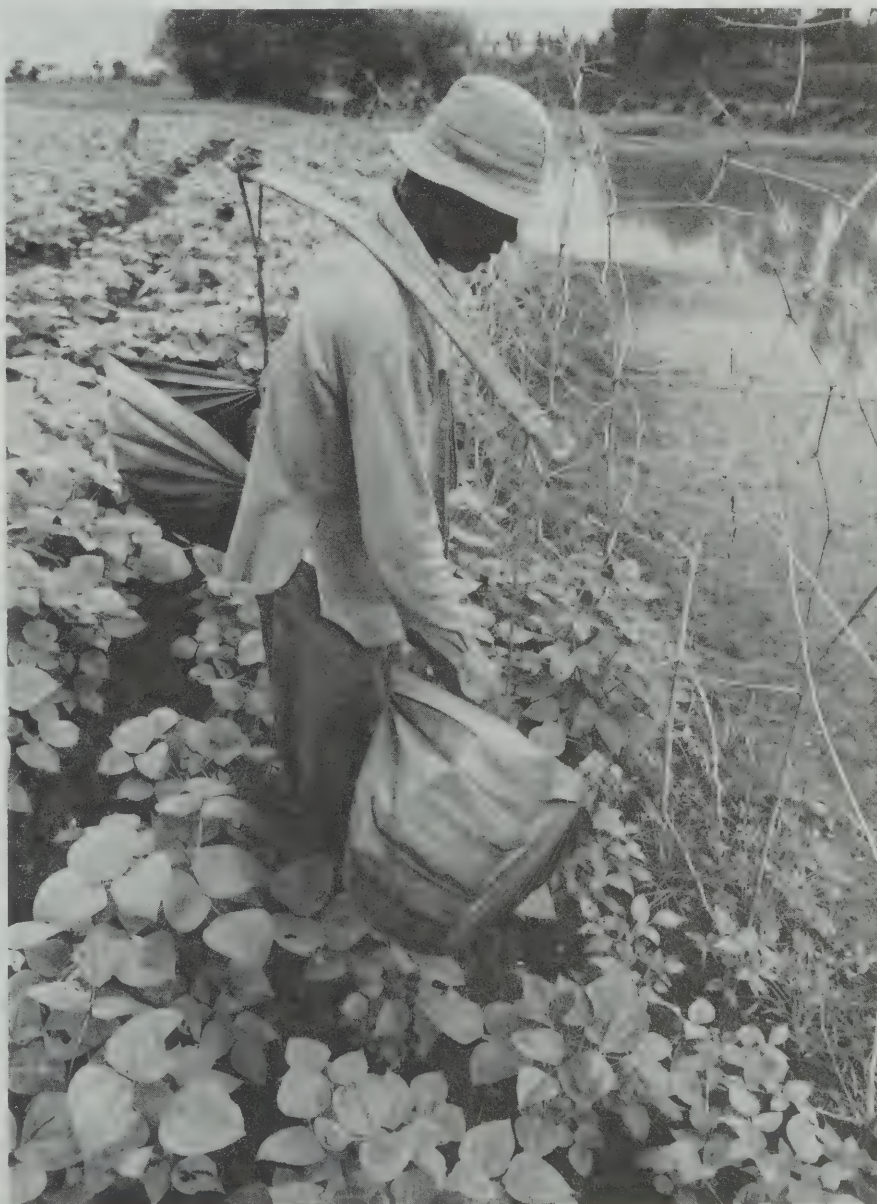
2.5 billion 25 years after that. By 2020, and despite a 20 per cent decline in birth rates, India will rival China as the world's most populated nation. The huge task of merely providing basic needs to growing populations appears to be formidable for a subregion which already lags behind the rest of the world.

Despite significant progress in reducing population growth rates in the past decade — particularly noticeable in the NICs, China and ASEAN countries — the population problem will continue to overshadow the region's socio-economic development in the foreseeable future, as most countries

will experience large absolute population increases in the coming decade. Such a trend is likely to have a significant impact of food production and nutritional levels. According to some experts, achieving a balance between food and people in the next decade may depend as much on family planning as on farming.

FOOD PRODUCTION

Limiting the number of births is at best a medium-term solution. More important in the short-run is



CIDA Photo: Pat Morrow, Indonesia

13. Daily calorie supply per capita in selected countries of Asia and the Pacific (1965-1986)*

Country	1965	1986
Bangladesh	1,971	1,927
China	1,926	2,630
Hong Kong	2,504	2,859
India	2,111	2,238
Indonesia	1,800	2,579
Laos	1,956	2,391
Malaysia	2,247	2,730
Myanmar	1,917	2,609
Nepal	1,901	2,052
Pakistan	1,761	2,315
Papua New Guinea	1,905	2,205
Philippines	1,924	2,372
South Korea	2,256	2,907
Singapore	2,297	2,840
Sri Lanka	2,153	2,400
Thailand	2,101	2,331
Vietnam	n.a.	2,297

*These figures, based on the availability of calories and protein, relate to supply, not consumption.

Source: *World Development Report 1990*, World Bank.

the ability of nations to produce the food that they need or to purchase it. The issue of food production throughout Asia is paramount, especially since most people depend on agriculture for a livelihood and because subsistence farming is extensively practised. Among the low income countries in the region, over 70 per cent of the people are engaged in agriculture. Even in middle-income countries of Southeast Asia, close to half the labor force earns its living from agriculture. Productivity per acre varies widely, with highest yields in Japan and the newly industrializing

Rice — Asia's staple of life

Cereals, especially rice and wheat, are the main staples in the Asian diet and the main crops sown in the region. Rice spreads over 80 per cent of the planted area in Bangladesh, Malaysia and Thailand and over 50 per cent in six other Asian countries. With over two billion people depending on it for

their diet, rice may be the single most important food crop in the world.

Harvested on about 140 million hectares, world rice production has averaged in recent years over 400 million tonnes of rough rice or 275 million tonnes of milled rice. Close to 90 per cent is produced in Asia and most

of it is consumed locally by rural families. Only one-quarter enters the market, and of this only 5 per cent is traded internationally. Almost half of this crop is unirrigated, so that the delicate balance between world rice supplies and demand depends completely on the Asian monsoon.

countries, followed by China and Southeast Asia, with South Asian countries last.

Most countries are particularly worried about the quality and sustainability of the region's natural resources. And for good reasons. On a global basis, only 11 per cent of Asia's soils offer no serious limitation to agriculture. South Asian and Pacific island-states are particularly subject to climate and natural constraints. Throughout the region, croplands are increasingly under stress, as a result of the growing demand for food and fibre. To make matters worse, Asia has been beset in the last decade by a number of natural disasters, such as floods and droughts, all of which

have reduced crop yields and increased the need for food imports.

The Green Revolution truly has changed Asia's fate. It has enabled the region to support a twofold increase in its population, and at the same time improve the well-being of its inhabitants in terms of diet, health and life expectancy. Countries that once depended on food imports to avert large scale-famines are now net exporters. But the Green Revolution did not reach everyone everywhere, nor were its effects uniformly positive, as table 13 illustrates.

Although there is little doubt that the region's resources can support a larger human family, increasingly the challenge will be to find environmentally sustainable ways to expand the food



CIDA Photo: David Barbour, Philippines

Even 5000 years ago, Asians were using irrigation and practising crop rotation.



CIDA Photo: David Barbour, Philippines

supply without compromising the resource base.

Adding to the food problem has been the levelling off of high yield varieties, and current trends have experts worried. According to World-watch Institute, world grain output increased 2.6 times between 1950 and 1984, but since then its growth has declined steadily. The slowdown has occurred in several of Asia's most populous countries: China, India and Indonesia. In addition to population pressures, reasons for the decline in productivity include depressed grain prices and limits imposed on farmers by land shortages, deforestation, soil erosion and mismanagement of water resources.

REGIONAL TRENDS

In broad terms, food production has risen slightly in most countries of the region over the last decade, but

with mixed results. While some, like Myanmar, China, Korea and Thailand, have managed to maintain their levels of self-sufficiency, and even to export surpluses to neighboring countries, others, like Indonesia and Bangladesh, once important rice exporters, have become dependent upon imported food, as a result of growing population.

Food production, particularly all protein-rich food items, is relatively high in most countries of East Asia, including China, where daily per capita calorie supply exceeds the regional target of 2500 calories. The highest levels are naturally found in the more affluent countries — Japan, Taiwan, South Korea, Singapore and Hong Kong.

Southeast Asian countries, such as Malaysia, Indonesia, Thailand and the Philippines, have all managed to reach the minimum nutritional level of around 2250 calories per day, despite rapid population growth. Notable newcomers in this category are Myanmar and Laos.

The situation is far more critical in the less-developed countries of South Asia and the Pacific islands, where, with the exception of Sri Lanka, figures have either decreased or stagnated. In Bangladesh, food shortages are acute, for despite efforts to increase production, the gap between supply and demand has been widening gradually. Pakistan and India are also facing local food shortages. Some countries in the Pacific depend almost totally on foreign countries for their food requirements. As a result, rampant malnutrition prevails and affects more people than any other adverse health condition. Malnutrition is a killer disease among children. In the case of pregnant women, it translates into anaemia, which afflicts more than half of the South Asian female population of child-bearing age.

Such huge problems underline the need for massive agricultural reform. Along with land reform, there is a great need for better irrigation and water management, use of high-yielding varieties and multiple cropping,

14. Urban population trends in Asia and the Pacific

Subregions	Millions of people			Percentage growth	
	1960	1980	2000	1960-80	1980-2000
South Asia	106	222	500	110	125
East Asia*	231	448	802	90	80
Pacific	10	16	24	60	45

* excluding China

Source: *State of the Environment in Asia and the Pacific*, vol. 1, ESCAP, Bangkok, 1985, p. 28.

and, above all, for greater community participation in land and conservation schemes. Without such efforts, ecologists fear that fast growing populations in these countries will pressure many landless farmers into expanding cultivation to marginal lands, with the result of greater environmental degradation through deforestation, soil erosion and mismanagement of water resources.



High population densities have led to pollution and other environmental ills.

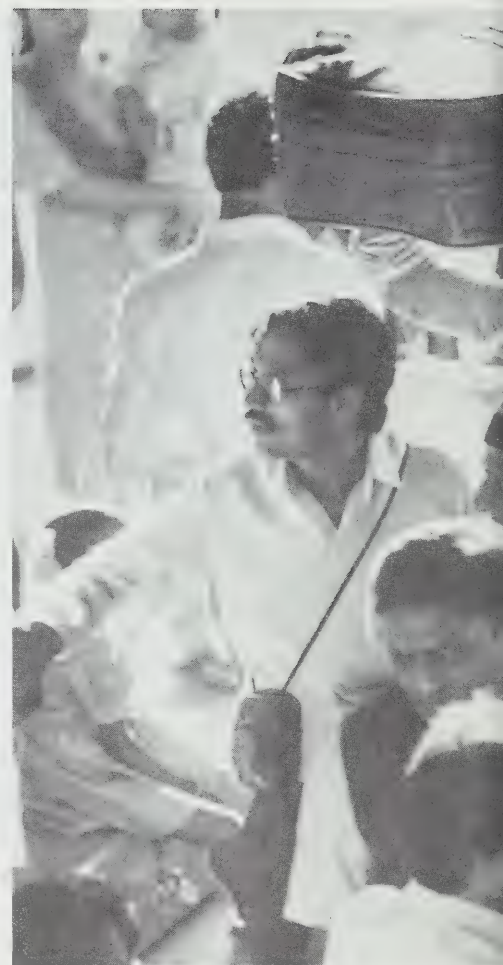
URBANIZATION

For over two decades, levels of urbanization in Asia, with the notable exceptions of Japan and the NICs, have been low by world standards. But all this is changing rapidly, as a result of booming economies, unprecedented urban growth rates

and steady flows of rural migrants. Urban populations are growing at a much faster rate in Asia than in most developing regions, and are expected to almost double by the end of this century, from its 1980 figure. By the year 2000, Asians living in cities will account for 45 per cent of the world's urban population. The greatest urban growth is expected to take place in South Asia.

Urban trends vary considerably within subregions and countries. With the exception of China, East Asian countries are highly urbanized, with over 80 per cent living in cities. Among these industrialized economies, Singapore has the highest urban rate, followed by Hong Kong, Japan and South Korea.

In the rest of Asia and the Pacific, the opposite situation prevails — most people live in rural areas, although considerable variation exists among countries. Among sub-groupings, ASEAN countries are the most urbanized. The Philippines has the highest rate, followed by Malaysia and Indonesia. Thailand closes the ranks with barely one-fifth of its people living in cities. Urban figures are even lower for the centrally planned economies of Indochina. This is not to say, however, that these predominantly rural economies have no urban problems. In fact, the alarming rate of rural to urban migration is jeopardizing the distribution of population and is straining the available economic and social infrastructure. The



causes of migration are varied, but there is little doubt that higher wages attract rural people to the cities.

South Asia and the Pacific present a mixed picture. According to the regional average, urban dwellers account for less than one-quarter of the population, but figures indicate that urbanization is increasing rapidly. The highest urban rate is found in Pakistan, where close to 30 per cent of the people live in cities, followed by India and Sri Lanka. In Papua New Guinea, the figure drops to 15 per cent. The lowest rate is in Bhutan, where less than 5 per cent of the people are urban dwellers.

Asia's urban trends reveal increasing concentration in the larger cities. For example, there are five megacities each with a population of over 10 million — Tokyo, Shanghai, Calcutta, Seoul and Bombay — and another 11 urban centres with more than 5 mil-

RESPONDING TO CHALLENGES

Despite the nature and extent of the problem, most countries in the region have developed ways of coping with the swelling demand. Some have even responded to the challenge of urban growth with skill and ingenuity. Within the past two decades, the provision of urban water supply has increased fourfold, and the number of people with access to services jumped from 39 per cent to 70 per cent. Others have made significant strides in establishing an attractive minimum standard of living in the rural areas. Bangladesh, China, India, Malaysia, Korea and Sri Lanka are striking examples of countries that have made significant efforts to improve rural living conditions and shelter.

In the cities, governments have sponsored low-cost housing for low-income groups. India, Indonesia, the Philippines, South Korea and Thailand, among others, have undertaken major programs to upgrade slums and squatter areas. But, improving urban quality and land availability in most urban areas requires tackling some of the most difficult and critical issues. In addition, no matter how ambitious the efforts or targets are for housing, water supply and sanitation, they always seem to fall short of the need.

Population growth will remain the single most serious challenge to development and prosperity in the coming decades, especially in the poorer developing countries. By the year 2000, Asia will have witnessed an increase in population of roughly two and a quarter billion, or over 165 per cent of the total regional population in 1950. Such an unprecedented demographic event will add considerable pressure on both food production and urban needs. In addition, rising numbers will exert a significant impact on the region's eco-systems. Already there are signs that the resource base is shrinking.



CIDA Photo: Roger Lemoyne, India

lion people. More than half of the world's largest cities are located in Asia. In thirty years from now, there will be at least 15 cities or metropolitan regions with populations of more than 15 million, 37 cities with over 4 million, and 183 with one million or more.

Urban growth can be an asset or a liability. Traditionally, the city has acted as an important growth pole of social and economic development. But now, bulging at the seams, especially in the region's developing countries, cities seem to act as a barrier rather than a stimulus to growth. Huge urban complexes already pose serious environmental problems. Their infrastructures are greatly overtaxed and they face massive shortages of shelter, water and sewerage, electricity and transport.

As a result, most people in many of these cities are living in slums and shantytowns. According to some estimates, one-third of the people in Calcutta, Manila and Seoul and two-thirds in Colombo live in squatter settlements. The situation in Bangkok, Jakarta and Karachi is little better with 20 to 25 per cent of urban dwellers living in slums and squatter settlements.



CIDA Photo: David Barbour, Bangkok, Thailand

ENVIRONMENTAL THREATS AND CHALLENGES

BROAD PERSPECTIVES

Almost all countries in the region have increased the pace and intensity of their economic development during the past decades. Yet, much of it has been achieved, in Asia as elsewhere, at the expense of the environment. In the region, however, rising numbers combined with rapid industrialization and urbanization have resulted in serious degradation of the physical environment, and, in some cases, the destruction of the resource base.

Although no region or country remains unscathed, environmental problems tend to differ both in kind and degree according to the level of development. In the richer, industrialized countries, major improvements have taken place as a result of efforts and funds invested in the research and testing of anti-pollution devices. In Japan and Hong Kong, air pollution has been brought under tighter control by effective monitoring and legislative measures. However, despite improvements, these countries still face serious problems of acid rain, water pollution, the disposal of toxic wastes, land degradation, marine and atmospheric pollution, and dangerously high carbon dioxide levels.

For the developing countries that could afford neither the 'react and cure' policies of the richer nations, nor the costs of stringent pollution controls, the result has been a massive deterioration of their environment. In

these countries, the main concern is the threat not only to human health, but also to the natural resource base — the building block of development. Asian developing countries are facing an unprecedented environmental crisis from over-exploitation and exhaustion of renewable resources, the rate and scale of which are expanding. Forests are shrinking, deserts are growing, marine pollution is increasing, water resources are being depleted and slums and shantytowns are expanding. In spite of food production increases over the past decades, hundreds of millions of people are chronically hungry or malnourished. For the poorer groups in these countries, critical environmental issues translate into basic daily pre-occupations: food, fuel and shelter. These people interact with and affect the environment most directly and are often compelled to destroy the resources necessary to cope with starvation and poverty. But they are far from being the only culprits. Some claim that government policies which sought economic development regardless of ecological costs must also be blamed for the current environmental disaster.

REGIONAL CONCERNS

Japan, despite rising public awareness, still has to wage a long hard fight for a healthy environment. Over the last fifteen years or so, the



Asian developing countries are often compelled to destroy their

main priority has been on how to reduce the devastating effects of industrial pollution on human health and the environment. Initially, major improvements took place, as Japanese companies began to accept environmental responsibility. But even this progress is now threatened. A 1984 survey revealed that both air and water quality had fallen compared to previous years. One-third of the rivers and 60 per cent of the lakes and marshes failed to meet water quality standards. The increase in the total volume of sulphur dioxide, nitrogen oxides and other pollutants, emitted by vehicles, power plants and industry, has been singled out as the major cause of acid rain, the effects of which are now being felt most dramatically in and around Tokyo.

Hong Kong's war against air and water pollution may be too little, too late. What progress has been made,



CIDA Photo: Roger Lemoyne, India

able resources.

say experts, is dwarfed by the extent of the problem. According to official figures, more than half the factories in major industrial areas still discharge hazardous wastes into the harbor and surrounding rivers, destroying most marine life. In the past decade, South Korea has taken some drastic steps to improve the state of its environment, but only in the wake of a serious ecological disaster.

In China, because of gigantic pressures from population and, for decades, a lack of environmental concern, the levels of both ecological destruction and environmental pollution are critical. The most pressing issues include deforestation, land degradation, desert encroachment, water resource shortages and high levels of atmospheric pollution.

In Southeast Asia, the dominant environmental concern is the eradication of rain forests. More than half of the region's forests have been destroyed since the turn of the century. Unless the trend is reversed, ecologists estimate by the year 2010 most

Asia's invisible threat

Although air pollution in most of Asia is of recent origin, it has already taken a serious toll in major cities such as Bangkok, Bombay, Manila, Seoul, Karachi, Shanghai, Dacca and Tokyo. Increased industrial activity, a 300 per cent surge in the number of motor vehicles, and burning of fossil fuels, coal and fuelwood account for most atmospheric pollution. Advances made so far have been limited to the more affluent countries. Concentration of sulphur dioxide, for example, has been reduced in Japan and the new industrializing countries. In all others, the concentration has actually increased.

In most cities of South Asia, such as Bombay, Calcutta, New Delhi, Karachi, Lahore and Dacca, smoke pollution has reached critical levels. In India, high levels of smoke and dust particles have been recorded in Delhi and Hyderabad, while sulphur dioxide reached high levels in Bombay. Industrial centres such as Bhilai and Jamshedpur are highly contaminated by pollutants released by iron and steel factories. Malaysia, Thailand, Indonesia and the Philippines face the same set of problems caused by growing numbers of motor vehicles, thermal electric plants, chemical and steel industries.

In China, air pollution

concerns top the list of popular complaints. Air pollution has reached critical levels in most big cities and industrial areas, mainly because of the use of low grade coal. Coal accounts for 75 per cent of the energy consumed by industries and 85 per cent of all domestic fuels. Every year, China is covered with some 23 million tonnes of smoke and dust particles along with 17 million tonnes of sulphur dioxide. In large cities, sulphur dioxide and dust levels surpass the standard set by the state, with the result that government studies have shown that between 1949 and 1979, cancer mortality in the Beijing area increased

by 145 per cent.

Another atmospheric scourge that is spreading rapidly in some countries is acid rain, which has been identified as a major threat to Tokyo's forested belt. It has also been observed consistently in some parts of China. The south-western region, for instance, is experiencing a forest dieback as severe as in Europe. Acid rain has become so critical that research on it has been listed as one of the top priorities for the current national five-year research program which ends in 1990. Threatening levels of soil acidity have also been found in parts of South India and Southeast Asia.

The rape of the rain forest



CIDA Photo: Virginia Boyd, Malaysia

The dominant environmental concern in Southeast Asia is the eradication of the rain forests, with up to 40 hectares being cleared every minute.

Rain forests are many things to many people. For scientists, tropical forests are the lungs of the earth, recycling oxygen and moderating the planet's wind, water and weather cycles. For biologists, rain forests represent a genetic storehouse of immense diversity, supporting 80 per cent of the world's plant and animal species. Agronomists see them as a cornucopia of undiscovered food sources, while chemists view them as pharmaceutical banks, whose secrets may relieve suffering for millions of people. Jungle extracts have already led to new treatments for hypertension and some forms of cancer. Most importantly, rain forests provide food, shelter and work for

millions of people. Climbing palms or rattans, for instance, support an industry worth over US\$2 billion a year and keep half a million Asian people in work. Rattans play a vital role in the economy of rural people of Southeast Asia, yet their fate is intricately linked with the shrinking tropical forest in which they grow.

Southeast Asia's rain forests, the oldest and most bountiful in the world, are disappearing. This is an undisputed fact. Of the region's 2.5 million square kilometres of tropical forests in 1900, three-quarters have been cleared. Every minute, about 40 hectares are destroyed by loggers. Most of the wood is exported to Japan, where it is

used to manufacture a variety of wood products. The rate of destruction of Asia's tropical forests has been faster than elsewhere, including Brazil, with the result that the region's forests are in much worse shape and already stand at the very edge of total destruction. Indonesia accounts for a third of the depletion, and Malaysia and Thailand, until recently, another third. In the latter, the forest cover shrank from 66 per cent in 1950 to a little over 29 per cent in 1985, but what really remains, say experts, amounts to less than 20 per cent. In the Philippines, forests are down to one-tenth of what they used to be 80 years ago.

The destruction of tropical

forests has been catastrophic for all countries concerned. There have been increasing occurrences of floods, droughts and reports of growing lists of endangered species of plants and wild-life. Three-fourths of the Philippines has soil-loss problems. In late November 1988, villages in southern Thailand were washed away in flash floods or buried in mud. Losses included lives and ruined farmland, houses, roads, bridges and dams. In Malaysia, nine states were affected in recent years by floods, including areas not normally flood-prone.

There is also less visible, but very harmful waste. As Asian rain forests recede, the first casualties are wildlife and plant species. In South Asia, Southeast Asia and the Pacific, the International Union for the Conservation of Nature and Natural Resources listed 514 endangered species, in addition to several thousands of plant species. In India alone, between three to four thousand plant species are threatened by extinction.

For the peoples of Southeast Asia, deforestation is a matter of life and death. According to the World Resources Institute, over 1 billion people are suffering from flooding, fuelwood shortages, soil and water degradation and reduced agricultural production caused directly or indirectly by the loss of tropical forests.

of these rain forests will have disappeared or been seriously damaged. As a result, more than half a million species of flora and fauna are likely to vanish over the next 10 to 15 years.

Commercial logging, followed by the encroachment of landless people, is the main culprit. In addition, Southeast Asian countries must cope with serious environmental issues such as

soil erosion, water shortages, urbanization as well as industrial, coastal and air pollution. Far from receding, the problems are likely to increase with population growth and greater

affluence.

Most countries in South Asia and the Pacific are also experiencing severe environmental degradation. In several, agriculture has failed to meet the needs of the poorer people and poverty remains widespread as deforestation rates increase. The rain forests of India, Bangladesh and Sri Lanka have already been almost completely destroyed. South Asia's arid and semi-arid soils are particularly vulnerable to desertification. Under intensive land-use pressures, the fragile soil is exposed to wind and water erosion . . . crop yields drop, sand dunes form, and farmers abandon their land. In the Himalayas, the desperate search for more agricultural land has forced villagers to cultivate marginal, unproductive lands and to strip vast areas of forest cover, with the result that close to 85 per cent of all agricultural land suffers from severe erosion. The destruction of watersheds has turned the region's vast water resources into a source of destructive floods, followed by periods of prolonged drought. According to Indian scientists, the country's flood-prone areas have doubled between 1970 and 1980.

CIDA Photo: Pat Morrow, Nepal



Agricultural land is at a premium in Nepal.

Even the Pacific islands, whose image is often one of unspoiled natural environment, are the focus of environmental concern. Over-exploitation of resources and high population densities have led to erosion, pollu-

tion and other environmental ills. Soil degradation has been reported in at least 60 per cent of the countries, with deforestation the main offender. Water resources are scarce and supplies are polluted. Fish stocks have been depleted in many areas and some species are seriously threatened. Other major problems include waste disposal, inefficient land use and increasingly endangered species.

Environmental prospects are indeed worrisome. Unless specific measures are taken now, the following environmental situation might prevail in the future: most forest cover will be lost in the region, endangering watersheds and increasing soil erosion and the frequency of floods and droughts. Soil productivity will decrease as a result of over-exploitation of the land, while increase in the area of irrigated land is likely to lead to further salinization and water-logging. Serious depletion of fish stocks will come as a result from inadequate technology, fishing practices, the des-



CIDA Photo: Hélène Tremblay, Papua New Guinea

Even in the Pacific Islands, resource management is becoming a concern.

Fisheries in jeopardy



CIDA Photo: David Barbour, Thailand

Most fishing economies continue to depend on the traditional fisherman.

The oceans offer abundant food supplies and fisheries are the most significant resource in most coastal countries. Asia accounts for close to half of the world's total catches. More than one billion people throughout the region rely on fish for their primary source of protein. But, pollution, mismanagement and overfishing are threatening marine resources.

The development of large

scale or industrial fisheries has led to a fourfold increase in world output. Overall, the industry has been dominated by a dozen nations whose fleets take the lion's share of the harvest. Nine countries account for three-fifths of the global total, with Japan leading the way.

The shift from coastal fisheries geared to local consumption, to large trawlers and freezing plants has also

led to the destruction in certain areas of the resource base through overfishing. Trawlers scoop up everything in their path, thus depleting fish stocks. Consider these figures: The number of trawlers in Southeast Asia jumped from 200 in 1960, with an average catch of 298 kg of fish per hour per boat to 4885 in 1974, with an average catch of only 58 kg per hour per boat. In the process,

some stocks have collapsed. Shrimp catches, by the mid-'80s, were one-tenth of what they were a decade ago. Decreasing yields force trawlers ever closer to shore, thus depriving traditional fishermen of their livelihood, despite the fact that most fishing economies continue to depend on the work of the artisanal fisherman. The confrontation between capital-intensive fisheries and local fishermen affects 6.5 million people in India, and 20 to 25 million people throughout Southeast Asia.

A unique environmental problem encountered in marine waters of the region is the sudden appearance of poisons within some species of fish, which are traditionally known to be non-poisonous. The disease known as *ciguatera* can be fatal to humans. Akin to this phenomenon is the occasional appearance of 'red tide' consisting of planktonic organisms which are highly poisonous and can kill people. These red tides have often occurred in coastal areas of India, Japan, South Korea, the Philippines and Thailand.

truction of mangroves and coral reefs and water pollution. Water supply and sanitation coverage will be threatened by increasing demand. Atmospheric pollution will likely expand five to tenfold due to greater industrial activity and a 300 per cent expected increase in motor vehicles.

Asian governments have become aware of the importance of integrating population, resources and environment in the development process. Most have taken several positive measures to protect land resources, to

replant forests and to limit the degradation of marine stocks. These initiatives are noteworthy, say experts, but far from enough. Policies, they say, should also be clarified. Latest analysis seems to confirm their view. According to a UN report on the state of the environment in the region, while development plans and policies may give the impression that objectives are successfully blended, practically much more remains to be done for effective coordination and integration.

Most of the resources under stress today in Asia are essential to the long-term economic development of these countries. With the productive capacity now threatened, effective action is needed to reverse this trend. Political will and the participation of local communities are crucial to reverse current trends. Unless major eco-systems are protected, the environment may well be Asia's major stumbling block in the future, and environmental protection its greatest challenge.

ASIA BY THE YEAR 2000

*Predicting future trends
is always a difficult and
risky task.*

Unforeseen political events, such as those that happened in Eastern Europe, or sudden ecological disasters can alter even the most plausible forecasts. Yet, despite uncertainties, some trends are likely to persist. This final chapter looks at what present indicators of global economics may yield as well as some leading environmental concerns.

Economically, the countries of Asia and the Pacific are moving swiftly toward the 21st century in a quest for productive power. Spurred by Japan's economic miracle, and followed by the newly-industrialized countries and recently by the ASEAN countries, the Asia-Pacific region has emerged as a new pole of dynamism in the world today. Experts agree that the 21st century will indeed become the "Pacific Century."

Capital flows confirm the trend. As an economic and trading bloc, Asia is growing faster than any other region, as is its share of the world economy. By the year 2000, Asia will produce 50 per cent of the world's goods and services and consume 40 per cent of its production. The major economies will be more diversified than Europe and North America combined, and will experience higher economic growth rates

than most other industrialized countries. The region's foreign reserves and huge savings should keep Asia from experiencing major economic upsets.

An additional reason for such optimistic economic forecasts rests on the development of regional trade. 'Going regional' is now big business. Industrial investments are on the rise — not only from Japan, but also from South Korea, Hong Kong, Taiwan and Singapore, which are all investing huge amounts of foreign capital in ASEAN countries. Furthermore, Japan has opened its market to Asian goods, and its consumers are now more willing to buy imports made cheaper, because of the rising yen and improved quality of goods. Hong Kong, Singapore, South Korea and Taiwan have also evolved into developed economies. Their imports from Indonesia, Malaysia, the Philippines and Thailand rose 15 per cent between 1985 and 1988. Even in tourism, many of Asia's best customers are Asians themselves, members of a growing affluent, and prosperous middle class. These nations are keenly aware that greater regional cooperation enables them to diversify their economies, while creating larger markets for their products.



CIDA Photo: David Barbour, Bangladesh

JAPAN

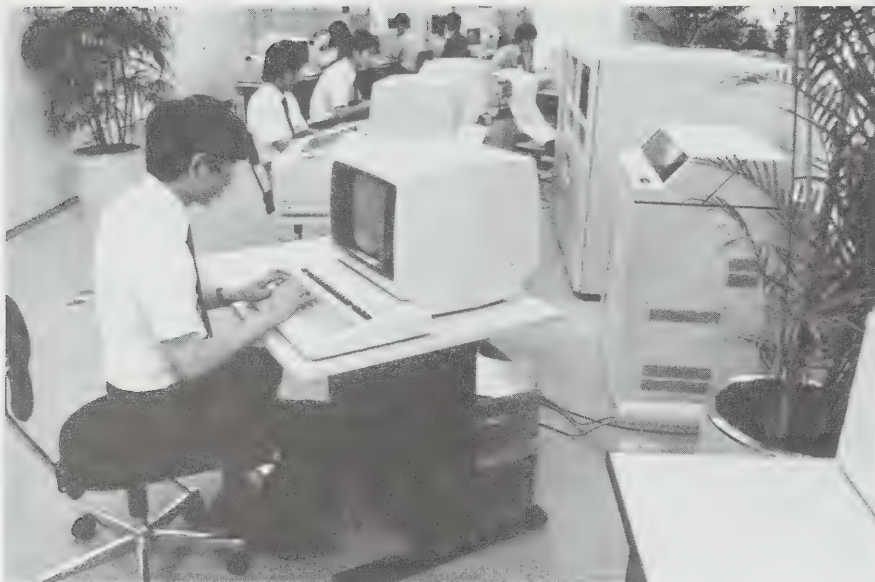
Japan's emergence in the last decade as an economic superpower and the world's leading creditor nation (combined with the transformation of the United States from biggest lender to biggest borrower) has happened so rapidly that experts still need to assess fully the political, economic and strategic implications.

For one thing, Japan's wealth is giving the country a new role, both regionally and internationally. By 2000, Japanese net overseas investments may topple US\$1 trillion, at which time the yen is expected to replace the dollar as the major international currency.

"In computers, robotics, telecommunications, automobiles, trucks and ships, and possibly also in biotechnology and even in aerospace, Japan will be either the leading or the second nation."

— Paul Kennedy, *The Rise and Fall of the Great Powers*, Random House, New York, 1987, p. 467.

Japanese investment in the Asia-Pacific region is rising faster than elsewhere, partly out of fear of increased protectionism from regional blocks.



First Light Photo: Eiji Miyazawa

Japan is rising quickly as a world leader in computers, robotics and telecommunications.

According to Merrill Lynch, a prominent U.S. foreign securities firm, Japanese direct investment in the region will average \$18 billion a year between now and the year 2000. This figure comes close to Singapore's GDP and Indonesia's entire 1988 exports. Capital exports and new business ventures are likely to cement the foundations of greater economic cooperation among Asian countries. The eventual creation of a 'Yen Block', however loosely organized, will also increase Japan's influence in the region.

Some Japanese spokesmen deny that things are so good and point to some major threats to their present market share and prosperity — increasing industrial challenge by Asian NICs, rising protectionism, increased pressure to open the Japanese market to foreign imports, and the swift rise in the value of the yen.

Yet, while it is expected that Japan's economic growth will slow down as it enters a more mature phase, and while it is true that other countries will try to challenge its supremacy, Japan is likely to maintain its power status in the future. With its surpluses that it has transformed into assets, and its current-account balance, Japan is destined to get richer.

In addition, its flexibility in adapting to abrupt market changes, along with its ability to invest in the most promising sectors of the economy, warrant such a forecast. Latest figures show that Japan introduces as many industrial robots as the rest of the world combined, and at several times the rate of the United States. According to some sources, Japan is already the leader in non-military research and development spending. In fact, most experts believe that Japan's economic slowdown will be a gradual process.

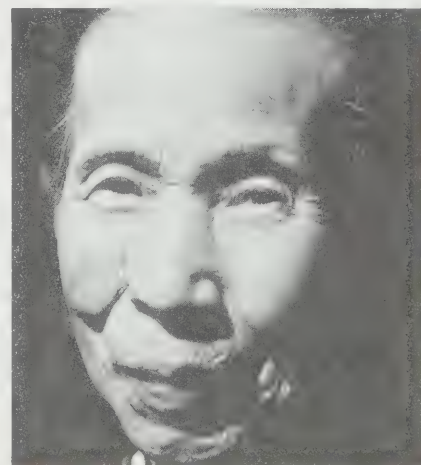
Other reasons why Japan may be relatively secure from recession include Tokyo's recent move to boost public spending to sustain growth, as well as the likelihood that companies and countries will continue borrowing in yen because of Japan's low interest rates and huge savings. No matter how one measures Japan's present and future economic strength, the country is enormously productive and prosperous and becoming increasingly so.

This is not to say that Japan's future is trouble-free. A major concern likely to persist is the increasingly hostile reaction of Americans and Europeans to the penetration of their domestic markets by Japanese products. Year after year, Japan's trading surpluses

with the EEC and the U.S. have widened. The European reaction has been the tougher one, ranging from import quotas to bureaucratic red tape. The free-trade pact between the United States and Canada and the unification of the European Community's markets by 1992 has Japanese leaders and businessmen worried. Contingency plans have been drawn up, as the country's official and academic study groups have joined forces in charting the future. One such option envisaged is a network of free-trade pacts involving Japan, the NICs, ASEAN countries and other industrialized nations. When the Japanese government unveiled its new aid policy in 1988, it made clear its intent to take initiatives in promoting greater regional economic cooperation. While Japan has plans for where its neighbors' economies should be headed, some of its critics say that Japan is aiming at integrating NIC and ASEAN economies into something that would look a lot like a greater Japan Inc.

"When geese migrate, they fly in V-formation. The pattern is a favorite analogy of Japanese civil servants for the economic development of East and Southeast Asia. Japan leads. Behind it follow the NICs. In the third rank are the new NICs and coastal China. As with flying geese, the arrangement is purposeful, well-ordered and coordinated."

— Paul Maidment, "Together under the Sun", *The Economist*, July 5, 1989.



First Light Photo: Jon Gardey, Kyoto, Japan

NICs – NO WAY BUT UP

The newly-industrialized countries (South Korea, Taiwan, Hong Kong, Singapore) and the new exporting countries (Thailand, Indonesia, Malaysia, the Philippines) are expected to increase their productive capacities as well as their share of foreign trade. Although their present economic performance may not be as spectacular as in recent years, these countries are expected to achieve respectable and sustainable growth rates in the coming decade. Experts have already predicted that by 1990 exports of the newly-exporting countries will surpass those of Japan. Asia's newly-industrialized countries are also gathering reserves in case of recession. Taiwan's foreign reserves are greater than those of France, Italy and Holland combined. Growth rates for most of these Asian economies are so high that even a downturn would still mean a 4 to 5 per cent increase.

By the next century, the economies of India and China may well emerge as pacesetters. Both offer dynamic possibilities. In just ten years from now, China is expected to increase its trade tenfold, while India's growing middle class is expected to sustain a booming domestic market. As for the communist states of the region, countries like Vietnam and Laos have already initiated a reform process aimed at liberalizing their economies and opening their markets.

These regional forecasts rest on two crucial assumptions. First, that the essentially free-trade international economic system is kept open . . . increased protectionism could only reduce economic growth and living standards in the region. Second, that these economies can maintain their current successful attempts to control inflation and make greater progress in coordinating their monetary and fiscal policies. Under these trends, domestic economic growth in the

Asia-Pacific region should continue to do well compared with the rest of the world.

THE ENVIRONMENTAL CHALLENGE

Are there any limits then to Asia's growth? From an environmental point of view, taking into account the depletion of the resource base throughout the region, the answer must be yes. In Asia, as elsewhere, much of this century's development has been achieved at the expense of the environment, with the result that most ecosystems are showing signs of over-stress. Pressures on world resources intensify daily.

Fortunately, our awareness of global ecological challenges has increased dramatically in the last decade. We have come a long way in understanding that development encompasses not only economic and social aspects but also those related to population, the use of natural resources and management of the environment. Advances in science and technology have helped us grasp intricate and

complex environmental linkages. The depletion of the ozone layer, for example, the build up of carbon dioxide, acid rain, and nitrogen shortages in the soil — once treated as separate problems — are now known to be closely related. Similarly, population pressures, soil erosion, deforestation, desertification and water management problems are all closely linked. Experience has shown that neglect in one area can lead to disastrous consequences in another.

The importance of environmental issues are at last recognized by most governments and impressive efforts are being made to address them. But the efforts are dwarfed by the extent and rate of destruction of natural resources. However, consensus is finally emerging on a new global agenda of environmental concerns in the '90s. This new agenda focuses less on domestic problems and more on global concerns. Major problems include:

- loss of crop and grazing land;
- depletion of the world's tropical forests;
- mass extinction of species;
- rapid population growth;
- mismanagement of water resources — overfishing, habitat destruction and pollution in the marine



CIDA Photo: David Barbour, Singapore



CIDA Photo: Pat Morrow, Pakistan

The protection of the environment may be Asia's greatest future challenge.

- environment;
- climatic changes and depletion of the ozone layer;
- acid rain and air pollutants;
- misuse of pesticides, chemicals and hazardous substances.

The 1990s represent a crucial decade for action on these environmental issues. The future, in large part, depends on the way we deal with the seriousness of a global-scale depletion of renewable resources. If this challenge is sidetracked, irreparable damage, say the experts, will be done to the world's environment.

We know the culprits. Resource depletion is related to both affluent life-styles and poverty. In the more affluent countries, major environmental problems stem primarily from careless and excessive use of certain technologies and resources; in the less-developed economies, from population growth and poverty.

"If present trends continue, the world in 2000 will be more crowded, more polluted, less stable ecologically, and more vulnerable to disruption than the world we live in. . . . Barring revolutionary advances in technology, life for most people on earth will be more precarious in 2000 than it is

now — unless the nations of the world act decisively to alter current trends."

— *United States Government, The Global 2000 Report to the President.*

"We now have a good understanding of some of the factors most likely to shape the planet's future, particularly population growth, climate change, water resources and prospects for feeding the world. . . . The picture of the 21st century that emerges is one with a human population that has more than doubled, higher global temperatures than the Earth has known for millions of years, acute water problems, food supplies at variance with population distribution, a mega-spasm of species extinctions and vast expanses of ruined land."

— *J. Peterson, "A Condensed Version of the Future", Ambio, vol. 13, no. 3, 1984.*

REGIONAL ISSUES

Some environmental trends are already obvious. Deforestation of the Himalayas has led to massive soil erosion and disruption of watersheds that are turning the region's

vast water resources into floods and havoc. Over half a billion people are affected in the plains of India, Pakistan and Bangladesh. Minerals, fishing and forests have supported ASEAN countries in their development. Yet, these countries, as well as most Pacific islands, are seriously threatened by overexploitation, pollution and mismanagement of the resource base. According to Worldwatch Institute, the future holds long-term food deficits for many Asian countries.

The protection of the environment may well be Asia's greatest challenge in the coming decades. Ultimately its success may depend more on changes in social attitudes and greater understanding of ecological balances than on technological skills. In Asia, as elsewhere, the challenge is the same: to think globally and act locally. Humans are now faced with a task more complex than anything before — how to make life on this small planet sustainable for present and future generations. With a global population of over 5 billion, we have little choice but to recognize that the environment provides both the basis and limits to growth, and that protecting it is just sound economics. Today's challenges require environmentally sustainable patterns of economic development . . . economic and environmental policies must be integrated in powerful and innovative ways.

Thus, major efforts are needed to change many current policies, to strengthen and multiply successful attempts, to use economic incentives and new technologies creatively. Bleak predictions need not be true. Options and solutions do exist. Knowledge, political will and regional cooperation can pave the way to a more secure world, sustainable both economically and environmentally. How Asian countries respond to this challenge will determine, in large part, the way the region develops in the 21st century.

Les nouveaux pays industriels (la Corée du Sud, Taïwan, Hong Kong, Singapour) et les nouveaux pays exportateurs (la Thaïlande, l'Indonésie, la Malaisie, les Philippines) vont, selon toute vraisemblance, accroître leur capacité de production et leur part du marché mondial. Même si leur économie semble aujourd'hui un peu moins florissante que par les années passées, ces pays feront quand même bonne figure, dans les 10 années à venir, en terme de croissance durable. Les spécialistes ont déjà prévu qu'en 1990, les exportations des nouveaux pays exportateurs dépasseront celles du Japon. Les nouveaux pays industriels d'Asie pratiquent également la technique de l'écurcul au cas où la crise pointerait à l'horizon. Les réserves ainsi accumulées par Taïwan dépassent celles de la France, de l'Italie et des Pays-Bas. Les taux de croissance affichés par la majorité de ces économies sont si élevés qu'ils se maintiendraient quand même à 4 ou 5 p. 100 advenant une récession.

Avant la fin du siècle, les économies de l'Inde et de la Chine pourraient fort bien mener le bal. Toutes deux offrent des possibilités intéressantes. Dans une dizaine d'années à peine, la Chine devrait dépasser le volume de son commerce, tandis qu'en Inde, une classe moyenne montante va soutenir un marché intérieur en pleine expansion. Quant aux États communistes de la région, des pays comme le Viet Nam et le Laos ont déjà entamé des réformes qui visent à libéraliser leurs économies et à ouvrir leurs marchés.

La valeur de ces prévisions régionales repose sur deux hypothèses. Tout d'abord, le système économique international continue de garder ses marchés ouverts au libre-échange. Une montée du protectionnisme aurait pour effet de réduire la croissance de ces régions, et donc les niveaux de vie. Ensuite, ces économies poursuivraient sur la voie actuelle des tentatives réussies de maîtriser l'inflation et d'inscrire de nouveaux gains au chapitre de la coordination de leurs politiques monétaires et fiscales. Dans ce contexte,

la croissance intérieure de la région Pacifique-Sud continuera de se démarquer de celle du reste du monde.

LE DÉFI ENVIRONNEMENTAL

Y a-t-il des limites à la croissance de l'Asie? D'un point de vue écologique, si l'on tient compte de l'état de dégradation des ressources dans la région, la réponse va de soi. En Asie, comme partout ailleurs dans le monde, le développement s'est fait en grande partie au détriment de l'environnement, à tel point que la plupart des écosystèmes montrent des signes d'épuisement et que la pression sur les ressources de la planète s'intensifie quotidiennement.

Heureusement, depuis une dizaine d'années, nous sommes de plus en plus conscients des grands défis écologiques. Il nous en aura fallu du temps pour comprendre que le développement concerne non seulement l'économie et le social, mais aussi tout ce qui touche à la population, à l'usage des ressources naturelles et à la gestion de l'environnement. Les progrès de la science et de la technique nous ont aidés à démêler les interactions complexes entre les écosystèmes. Autrefois, par exemple, on traitait séparément la détérioration

de la couche d'ozone, la formation du dioxyde de carbone, les pluies acides, ou les carences en azote dans les sols, alors que ces problèmes sont intimement liés. Il en va de même de la pression démographique, de l'érosion, du déboisement, de la désertification et des difficultés liées à la gestion des réserves aquatiques: cela fait partie d'un tout. Comme nous l'avons appris l'expérience, négliger un seul aspect peut avoir des conséquences désastreuses sur les autres.

La plupart des gouvernements viennent à peine de prendre conscience de l'ampleur des questions environnementales, et même s'ils ont fait des efforts louables pour s'y attaquer, ces tentatives ont été éclipsées par l'étendue des dommages causés aux ressources. Toutefois, un consensus a fini par émerger: on s'entend maintenant sur un programme global à propos des questions que sur les grands enjeux planétaires. Les principaux ont trait à:

- la perte de cultures et de pâturages; la destruction des forêts tropicales;
- la disparition des espèces;
- la croissance démographique trop rapide;
- la mauvaise gestion des ressources aquatiques: surpêche, destruction des habitats fauniques et pollution des mers;
- les changements climatiques et la détérioration de la couche d'ozone;
- les pluies acides et la pollution



Photo ACDI. David Barbour, Singapour

Le Japon apparaît de plus en plus comme le prochain chef de file mondial en matière d'informatique, de robotique et de télécommunications.



Photo First Light Eiji Miyazawa, Japon

Etats-Unis. Ce sont les Européens sur tout qui ont monté des dents, par l'imposition de quotas ou des tracasseries administratives. Le pacte de libre-échange Canada-Etats-Unis et l'unification des marchés de la Communauté européenne prévue pour 1990 ne sont pas sans inquiéter les dirigeants et les hommes d'affaires japonais. Pour parer à toute éventualité, des hauts fonctionnaires travaillent main dans la main avec des groupes d'universitaires à des plans d'avenir. Ils envisagent entre autres la création d'un réseau de pactes de libre-échange avec les NPI, les pays de l'ANASE et d'autres Etats industrialisés. Lors du dévoilement de sa nouvelle politique d'aide en 1988, le gouvernement japonais a clairement affirmé son intention d'encourager la collaboration entre les pays de la région. Le Japon a des vues très nettes sur la façon dont ses voisins devraient orienter leur économie, ce qui fait dire à ses détecteurs qu'il caresse la secrète intention d'intégrer les économies des NPI et de l'ANASE dans une sorte de «Communauté japonaise Inc.»

«Dans leur vol migratoire, les ourtardes adoptent la formation en V. Les fonctionnaires japonais adorent utiliser cette analogie lorsqu'ils discutent du développement économique de l'Asie de l'Est et du Sud-Est. Le Japon est le chef d'escadrille. Viennent ensuite les NPI. En troisième position, on trouve les nouveaux NPI et la Chine côtière. À l'instar des ourtardes en vol, la position des pays répond à un plan voulu, délibéré et ordonné.»

— Paul Malenfant, «Togelber under the Sun», *The Economist*, 5 juillet 1989.



Photo First Light Jon Gardey, Kyoto, Japon

N'allons pas penser toutefois que énormes, et continuent de s'accroître. productivité et sa richesse sont ployée pour évaluer la force actuelle Mais peu importe la méthode employée pour évaluer la force actuelle japonaise et leurs faibles taux d'intérêt. montant fararameux des épargnes japonaises et les compagnies continuent d'emprunter sur le marché du yen, vu le que la prévision voulant que les Etats ques pour soutenir la croissance, ainsi la récente décision de Tokyo d'accroître le montant des dépenses publiques.

D'autres raisons font croire que le Japon est relativement à l'abri d'une récession. Mentionnons entre autres la prévision voulant que les Etats ques pour soutenir la croissance, ainsi la récente décision de Tokyo d'accroître le montant des dépenses publiques. D'autres raisons font croire que le Japon est relativement à l'abri d'une récession. Mentionnons entre autres la prévision voulant que les Etats ques pour soutenir la croissance, ainsi la récente décision de Tokyo d'accroître le montant des dépenses publiques.

que se fera sans à-coups au Japon. d'avis que le ralentissement économique. La plupart des spécialistes sont d'avis que le ralentissement économique. La plupart des spécialistes sont d'avis que le ralentissement économique. La plupart des spécialistes sont d'avis que le ralentissement économique.

Il est vrai que l'économie japonaise va ralentir à mesure qu'elle arrive à maturité. Les autres pays vont probablement tout faire pour éviter de lui damer le pion. Pourtant, il est à parier que le Japon parviendra à maintenir son statut de puissance. Avec des surplus transformés en actifs et un compte courant équilibré, le Japon est condamné à s'enrichir davantage. Ce qui vient renforcer cette prévision, c'est la facilité que démon-

Certains porte-parole japonais nient que la situation soit aussi rose. Ils soulignent les dangers qui menacent leur part actuelle de marché et de richesse: la concurrence grandissante des NPI d'Asie au chapitre industriel, la montée du protectionnisme, les pressions grandissantes pour forcer le Japon à ouvrir ses frontières aux produits étrangers, et la montée trop rapide du yen.

certains groupes de pays en Asie. À Merrill Lynch, le Japon investira chaque année dans la région une moyenne de 18 milliards \$ US jusqu'à l'an 2000, ce qui équivaut pratiquement au PIB de Singapour ou encore à la valeur totale des exportations de l'Indonésie en 1988. Avec le mouvement des capitaux et la création de nouvelles coentreprises, les pays d'Asie vont sans doute s'assurer une meilleure base de collaboration entre leurs pays. La création éventuelle d'une «zone yen», déjà timidement ébauchée, va également accroître l'influence du Japon dans la région.

L'ASIE AU SEUIL DE L'AN 2000

Il est toujours périlleux
de se risquer dans les
prédictions.

Un événement politique, comme ceux qui se sont déroulés en Europe de l'Est, ou une catastrophe écologique inattendue peuvent rendre caduques les prévisions les plus vraisemblables. Pourtant, en dépit des incertitudes, certaines tendances sont appelées à demeurer. Dans ce dernier chapitre, l'auteur s'interroge sur ce que les indicateurs actuels de l'économie signifient pour l'avenir, et il se penche sur les principaux sujets d'inquiétude à propos de l'environnement. Dans le domaine économique, les pays de l'Asie et du Pacifique s'engagent résolument dans le XXI^e siècle avec la ferme intention d'accroître leur capacité de production. Stimulée par le miracle économique japonais et la longue par les nouveaux pays industriels — et plus récemment par les montées du yen, les consommateurs japonais veulent aujourd'hui se procurer des articles importés moins chers dont la qualité s'est nettement améliorée. N'oublions pas que Hong Kong, Singapour, la Corée du Sud et Taïwan sont en voie de devenir des pays industrialisés. Entre 1985 et 1988, leurs importations en provenance de l'Indonésie, de la Malaisie, des Philippines et de la Thaïlande ont augmenté de 15 p. 100. Le tourisme recrute sa meilleure clientèle parmi le nombre croissant d'Asiatiques cossus de la classe moyenne. Ces pays sont parfaitement conscients qu'en stimulant la coopération entre les régions, ils pourront diversifier leurs économies et élargir leurs marchés.

L'expansion du commerce entre les régions justifie cet optimisme. La conquête des marchés régionaux est devenue aujourd'hui la « grosse affaire ». Les investissements se multiplient dans le secteur industriel; le Japon n'est pas seul au rendez-vous: la Corée du Sud, Hong Kong, Taïwan et Singapour s'emprennent également à placer leurs capitaux dans les pays de l'ANASE. Le Japon a fait mieux: il a ouvert ses frontières aux produits manufacturés en Asie. Encouragés par la montée du yen, les consommateurs japonais veulent aujourd'hui se procurer des articles importés moins chers dont la qualité s'est nettement améliorée. N'oublions pas que Hong Kong, Singapour, la Corée du Sud et Taïwan sont en voie de devenir des pays industrialisés. Entre 1985 et 1988, leurs importations en provenance de l'Indonésie, de la Malaisie, des Philippines et de la Thaïlande ont augmenté de 15 p. 100. Le tourisme recrute sa meilleure clientèle parmi le nombre croissant d'Asiatiques cossus de la classe moyenne. Ces pays sont parfaitement conscients qu'en stimulant la coopération entre les régions, ils pourront diversifier leurs économies et élargir leurs marchés.

La montée fulgurante du Japon au cours des 10 dernières années a affirmé de l'économie mondiale où il occupe le rang de premier crédit-leur n'a d'égal que la chute des États-Unis devenus de nos jours le plus gros emprunteur, alors qu'il était jadis le principal créancier du monde. Cette transformation est survenue à une telle rapidité que les spécialistes n'ont pas encore fini d'en évaluer toutes les conséquences sur les plans politique, économique et stratégique. L'opulence du Japon lui confère tout d'abord une nouvelle mission, tant sur le plan régional qu'international. Vers le tournant du siècle, les investissements nets japonais à l'étranger pourraient atteindre le billion de \$ US, et le yen remplacer le dollar américain comme première devise internationale.

«En informatique et en robotique, dans les télécommunications, le secteur de l'automobile, du camion-pout-être même en biotechnique — le Japon occupera la première ou la deuxième place.» — *Paul Kennedy, The Rise and Fall of the Great Powers, Random House, New York, 1987, p. 467.*

Craignant sans doute la montée des protectionnistes, le Japon accélère le rythme de ses investissements dans

LE JAPON



Photo AGDI: David Barbour, Bangladesh

L'industrie de la pêche en danger



Photo ACIDI: David Barbour, Thaïlande

La plupart des économies qui dépendent de la pêche utilisent encore des méthodes traditionnelles.

Un phénomène écologique unique en son genre vient de faire surface dans les bassins maritimes de la région. Il s'agit de l'apparition soudaine de toxines dans certaines espèces de poissons, pourtant considérées comme non vénéneuses. Connue sous le nom de *ciguatera*, cette maladie peut être mortelle pour les humains. Ce phénomène s'apparente à celui de la «marée rouge», qui consiste en l'apparition occasionnelle d'un plancton à haute toxicité capable de causer la mort. De telles marées ont été signalées à plusieurs reprises sur les côtes de l'Inde, du Japon, de la Corée du Sud, des Philippines et de la Thaïlande.

Les océans contiennent d'énormes réserves alimentaires et, pour la plupart des pays côtiers, le poisson représente la principale richesse naturelle. L'Asie réalise à elle seule près de la moitié des prises mondiales. Pour plus d'un milliard de personnes, le poisson est la principale source de protéines. Cependant, la pollution, la mauvaise gestion et la pêche excessive mettent en danger l'existence même des ressources océaniques.

La pêche industrielle à grande échelle a quadruplé le volume des prises mondiales. De façon générale, cette industrie est dominée par une douzaine de pays qui, avec leurs flottes de navires, ont accaparé la part du lion: les trois cinquièmes des prises au monde sont le fait de neuf pays seulement, dont le Japon. Le passage de la pêche côtière, orientée vers la consommation locale, à la pêche hauturière, qui surexploite la ressource avec ses grands chalutiers et ses ins-

tallations frigorifiques, a également accéléré l'épuisement des stocks dans certaines régions. Les chalutiers ramassent tout sur leur passage, sans distinction. Les chiffres qui suivent donnent une idée de l'ampleur du problème. Le Sud-Est asiatique est passé de 200 en 1960, avec des prises moyennes de 298 kg à l'heure par navire, à 4 885 en 1974, avec des prises moyennes de 58 kg à l'heure par navire. Avec le temps, les stocks de certaines espèces

L'eau provoquent une sérieuse diminution des stocks de poissons. Les autorités sont dépassées par les demandes croissantes d'approvisionnement en eau et en services sanitaires. Et finalement, la pollution atmosphérique est quintuplée à la suite de l'hypercentrification industrielle tandis que le nombre de véhicules moteurs augmenté de 300 p. 100.

Dans les pays asiatiques, les gouvernements sont maintenant conscients qu'il est indispensable d'intégrer la population, les ressources et l'environnement dans le processus du développement. La plupart ont déjà pris des mesures

constructives pour protéger les ressources du sol, pour reboiser et pour circonscrire les dommages causés aux stocks marins. Selon les spécialistes, il s'agit d'un pas dans la bonne direction, mais c'est loin d'être suffisant. Les politiques manquent de clarté, et les plus récentes analyses semblent leur donner raison. Un rapport des Nations Unies sur l'état de l'environnement dans la région confirme que l'apparence de logique et de constance des grandes orientations politiques cache en fait un manque flagrant de coordination et d'intégration.

Bien des ressources surexploitées aujourd'hui en Asie s'avèrent essentielles à long terme de ces pays. C'est la capacité même de production du continent qui se trouve ainsi menacée, et il est impérieux d'engager des actions efficaces si l'on veut inverser la tendance. C'est par une réelle volonté politique et la participation du public qu'on y arrivera. À défaut d'assurer la protection de ses principaux écosystèmes, l'Asie pourrait bien se retrouver aux prises avec la pire crise de son histoire, et la protection de

l'environnement représente son plus grand défi.

et des récifs coralliens et à la pollution de sociétés à la destruction des mangroves - pêche et les techniques imprudentes des sols. Les nouvelles pratiques de trop élevé de salinité et d'imbibition l'excès d'irrigation entraîne un degré à la suite de la surexploitation, et sols perdent peu à peu de leur fertilité d'inondations et de sécheresses. Les périodes de plus en plus fréquentes eaux menacées, érosion accélérée et ture forestière, lignes de partage des disparition quasi totale de la couverture forestière de la région: de l'aventurer écologique de la région: ment pourrait se présenter le scénario concrets dans l'immédiat, voici comment on ne prend pas de mesures Les perspectives environnementales ont en effet de quoi inquiéter. Si sombre tableau.

60 p. 100 de ces pays, on rapporte une dégradation des sols, causée surtout par le déboisement. Les réserves sont polluées. À plusieurs endroits, on a surexploité la ressource halieutique et certaines espèces de poissons sont menacées. Le recyclage des déchets, la mauvaise utilisation des terres et le nombre croissant des pièces menacées s'ajoutent au



Photo AGDI, Helene Tremblay, Papouasie Nouvelle-Guinée

aujourd'hui l'objet de préoccupations. La surexploitation des ressources et la densité démographique ont entraîné érosion, pollution et autres maladies de l'environnement. Dans plus de

Au Népal, une terre arable est un véritable trésor.

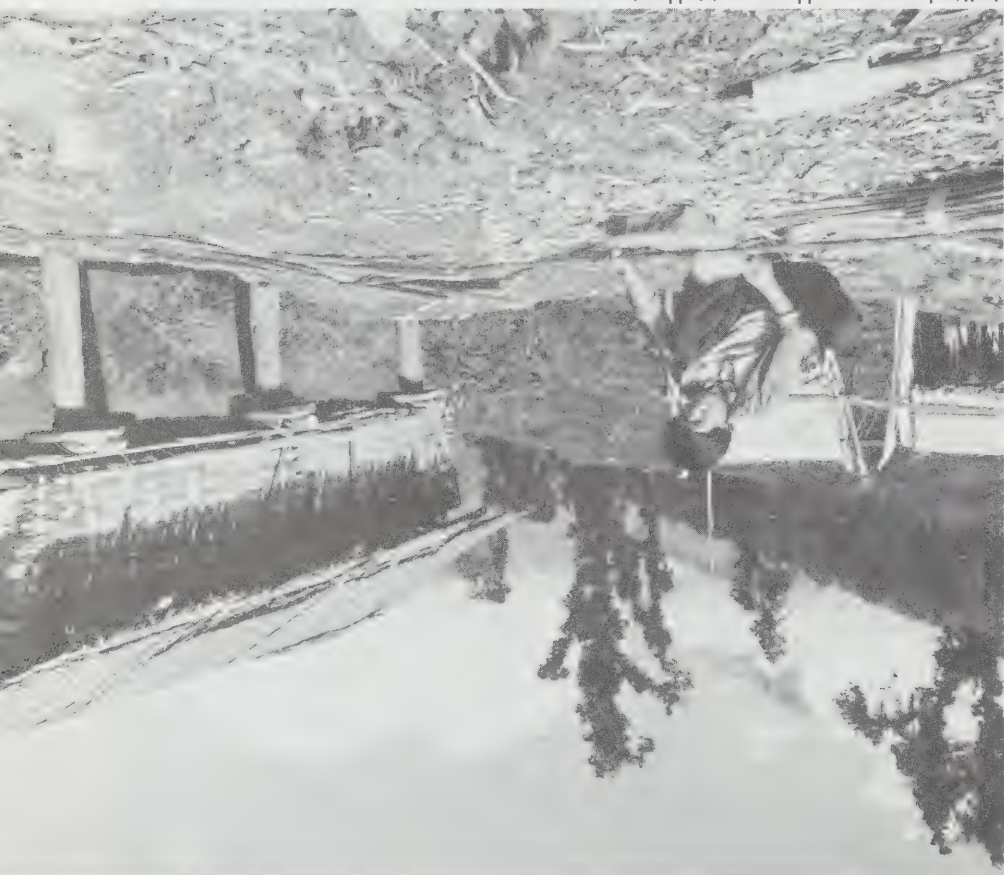


Photo AGDI, Pat Morrow, Népal

évoquent des paradis inviolés sont au- Les îles du Pacifique dont les noms inondations en 1970 qu'en 1980.

gion était deux fois plus sujette aux listes indiens soutiennent que la ré-sécheresses prolongées. Des spéciaux dévastatrices suivies de périodes de région en une source d'inondations norme potentiel hydrographique de la partage des eaux a transformé l'érosion. La destruction de la ligne de faces cultivables souffrent gravement près de 85 p. 100 de toutes les superficies de forêt, si bien qu'aujourd'hui, incultes et à déboiser de vastes super-cultiver des sols marginaux, des terres perte de terres a forcé les paysans à Dans l'Himalaya, la recherche déses-femiers abandonnent leurs terres. chute, des dunes se forment et les et l'eau: le rendement des cultures exposés à l'érosion causée par le vent ture, des sols déjà fragiles sont tures de pratiques intensives de cul-menacées par la désertification. Vic-de l'Asie du Sud sont particulièrement détruites. Les sols arides et semi-arides Sri Lanka sont à peu près totalement picales de l'Inde, du Bangladesh et de continue de plus belle. Les forêts tro-plus démunis et la pauvreté y est en-culture n'a pu satisfaire les besoins des environnement. Par endroits, l'agri-ment une grave dégradation de leur et du Pacifique connaissent égale-La plupart des pays de l'Asie du Sud

Même pour les petites économies insulaires du Pacifique, la gestion des ressources devient une priorité.

Le sacage des forêts tropicales



A chaque minute, l'Asie du Sud-Est voit disparaître plus de 40 hectares de forêt tropicale: il s'agit de la plus grande menace écologique.

Photo AGD: Virginia Boyd

en plus d'inondations et de sécheresses, et la liste des espèces végétales et animales menacées d'extinction continue de s'allonger. Les trois quarts du territoire des Philippines sont sujets à l'érosion. À la fin de novembre 1988, des crues-éclair ont emporté ou enfoui sous la boue des villages entiers du sud de la Thaïlande. Les pertes ne se comptaient pas seulement en vies humaines mais aussi en terres agricoles et en maisons, routes, ponts et barrages détruits. En Malaisie, neuf États ont été ravagés par des inondations ces dernières années, y compris des zones jadis à l'abri de ce type de cataclysmes.

Un problème tout aussi préoccupant, bien que moins évident, est celui des déchets

picales sont les espèces animales et végétales. En Asie du Sud, en Asie du Sud-Est et dans le Pacifique, l'Union internationale pour la conservation de la nature et de ses ressources a répertorié 514 espèces animales menacées, ainsi que plusieurs milliers d'espèces végétales. En Inde seulement, de 3 000 à 4 000 espèces de végétales sont menacées de disparition.

Pour les habitants du Sud-Est asiatique, le déboisement est une question de vie et de mort. Selon le *World Resources Institute*, plus d'un milliard de personnes sont victimes d'inondations, de pénuries de bois de chauffage, ou ont à souffrir de la dégradation des sols et de l'eau ainsi que de la diminution de la production agricole causées directement ou indirectement par la

transformation. Le phénomène du déboisement est plus rapide en Asie que partout ailleurs dans le monde, y compris au Brésil. Aussi les forêts tropicales de la région sont-elles dans un état lamentable et leur existence des plus précaires. L'Indonésie contribue à elle seule à un tiers de la destruction des forêts et, jusqu'à tout récemment, la Malaisie, et la Thaïlande y participaient pour un autre tiers. Si la forêt du territoire en 1950, elle n'en représentait plus que 29 p. 100 en 1985 et, selon les experts, le chiffre de 20 p. 100 serait encore plus réaliste. Aux Philippines, la couverture forestière n'est plus que 10 p. 100 de ce qu'elle était il y a 80 ans. La destruction des forêts tropicales représente une catastrophe pour tous les pays touchés. On y signale de plus

tout, la forêt tropicale fournit de la nourriture, des abris et du travail à des millions de personnes. Par exemple, l'exportation du palmier-à-vent, aussi appelé rotin, représente une industrie dont les revenus annuels sont évalués à 2 milliards \$ US et qui fournit de l'emploi à un demi-million d'Asiatiques. Le rotin joue un rôle vital dans l'économie rurale du Sud-Est asiatique. Le destin de cette plante reste toutefois intimement lié à celui de la forêt tropicale où elle pousse.

La forêt tropicale de l'Asie du Sud-Est, la plus ancienne et la plus riche du globe, est en voie de disparition. C'est 2,5 millions de km qu'elle comptait en 1900, les trois quarts ont été déboisés. À chaque minute, l'homme abat 40 hectares de forêt. La majeure partie du bois est exportée vers le Japon aux fins de

La forêt tropicale revêt une importance considérable aux yeux de bien des gens. Pour les scientifiques, la forêt tropicale est le poumon de la planète: elle nous alimente en oxygène et modère le cycle des vents, de l'eau et de la température. Pour les biologistes, elle représente un réservoir génétique immense diversifié. Abritant 80 p. 100 de toutes les espèces végétales et animales de la planète. Si les agronomes considèrent la forêt tropicale comme une source d'abondance où de nouvelles sources alimentaires restent à découvrir, les chimistes la découvrent quant à eux comme un laboratoire pharmaceutique recevant des formules secrètes capables de soulager les souffrances de millions de personnes. D'ailleurs, des extraits de plantes tropicales servent déjà à traiter l'hypertension et certaines formes de cancer. Mais d'abord et avant

des forêts tropicales de la région ont été rasées depuis le début du siècle. Si la tendance se poursuit, on peut s'attendre, selon les écologistes, à ce que la plupart des forêts aient complètement disparu d'ici à l'an 2000, ou soient sérieusement entamées. Par voie de conséquence, plus d'un demi-million

d'espèces végétales et animales pourraient disparaître au cours des 10 ou 15 prochaines années. La coupe commerciale du bois puis l'aménagement des terrains par les paysans sans terre en sont les deux grandes causes. En outre, les pays d'Asie du Sud-Est doivent aussi affronter divers types de

problèmes environnementaux, notamment l'érosion des sols, les pénuries d'eau, l'urbanisation et la pollution industrielle, la pollution de l'air et des zones côtières. Loin de se résorber, tous ces problèmes vont sans doute s'aggraver avec l'expansion démographique.

Hong Kong est peut-être intervenu trop tard et trop timidement dans sa lutte contre la pollution de l'air et de l'eau. Aux dires des experts, les progrès réalisés ne sont rien en comparaison de l'ampleur du problème. Selon les chiffres officiels, plus de la moitié des usines situées dans les grandes zones industrielles continuent de déverser des déchets dangereux dans le port et dans les rivières avoisinantes, détruisant la plus grande partie de la faune marine. Au cours des dernières décennies, la Corée du Sud allait quant à elle adopter des mesures énergiques pour améliorer sa situation sur le plan écologique, mais cela s'est fait après une grave détérioration de l'environnement.

En Chine, à cause de la très forte poussée démographique et du peu d'intérêt qu'a trop longtemps suscité l'environnement, le niveau de destruction des écosystèmes et de pollution de l'environnement a atteint un seuil critique. Le déboisement, la dégradation des sols, l'expansion du désert, l'épuisement des réserves d'eau et le niveau très élevé de pollution atmosphérique sont au nombre des problèmes les plus urgents.

En Asie du Sud-Est, c'est l'inquiétude soulevée par le déboisement des forêts tropicales qui domine le débat sur l'environnement. Plus de la moitié

Photo ACIDI: Roger Lemoyne, Inde



tie à détruire leurs ressources renouvelables.

La menace invisible

attribuables au cancer s'était accru de 1,45 p. 100. Un autre fleau qui se propage rapidement dans certains pays est celui des pluies acides. Elles sont une sérieuse menace pour la ceinture boisée de Tokyo. Leur présence a aussi été signalée dans certaines régions de la Chine. Dans la région du Sud-Ouest, par exemple, le dépensement des forêts est aussi grave que celui que connaît l'Europe. Le problème tel niveau qu'il est aujourd'hui une priorité du programme quinquennal de recherches qui prend fin en 1990. Les sols de certaines régions du sud de l'Inde et du Sud-Est asiatique contiennent des

population ont trait à la pollution de l'air. Celle-ci a atteint des seuils critiques dans la plupart des grands centres urbains et des zones industrielles, surtout à cause de la houille maigre qu'on y brûle. La houille représente 75 p. 100 de l'énergie consommée par les industries et 85 p. 100 de tous les combustibles domestiques. Chaque année, 23 millions de tonnes de particules de fumée et de poussière et 17 millions de tonnes de dioxyde de soufre recouvrent la Chine. Dans les grands centres urbains, le niveau de dioxyde de soufre et de poussière en suspension dépasse les normes fixées par l'Etat. Des études gouvernementales ont démontré, qu'entre 1949 et 1979, le nombre de décès

de l'Asie du Sud, telles que Bombay, Calcutta, New Delhi, Karachi, Lahore et Dacca, la pollution par la fumée a atteint des seuils élevés de Inde, des niveaux élevés de fumée et de poussières souillent l'air de New Delhi et de Hyderabad; à Bombay, c'est le dioxyde de soufre. Les centres industriels de Bhiil et Jamshedpur sont largement contaminés par les polluants qui s'échappent des hauts fours et des aciéries. La Malaisie, la Thaïlande, l'Indonésie et les Philippines partagent les mêmes problèmes causés par l'augmentation du nombre de véhicules, de centrales thermiques, d'usines de produits chimiques et d'acier.

Bien que la pollution soit un phénomène plutôt récent dans la plupart des pays d'Asie, elle a déjà eu de graves répercussions sur les grands centres urbains comme Bangkok, Bombay, Manille, Séoul, Karachi, Shanghai, Dacca et Tokyo. L'accroissement de l'activité industrielle, une progression de 300 p. 100 du nombre de véhicules à moteur, la combustion de carburants fossiles et de bois de chauffage sont les principales causes de la pollution de l'air. Des progrès ont été réalisés surtout dans les pays mieux nantis. La concentration de dioxyde de soufre, par exemple, a diminué au Japon et dans les nouveaux pays industrialisés. Partout ailleurs, elle a augmenté.

ENVIRONNEMENT : MENACES ET DEFIS

VUE D'ENSEMBLE

Presque tous les pays de la région ont accéléré et intensifié leur développement économique au cours des dernières décennies. En Asie, comme partout ailleurs, cela s'est fait dans une très large mesure au détriment de l'environnement. La poussée démographique associée au processus rapide d'industrialisation et d'urbanisation a sérieusement détérioré l'environnement physique et a même contribué, dans certains cas, à la destruction de la base des ressources.

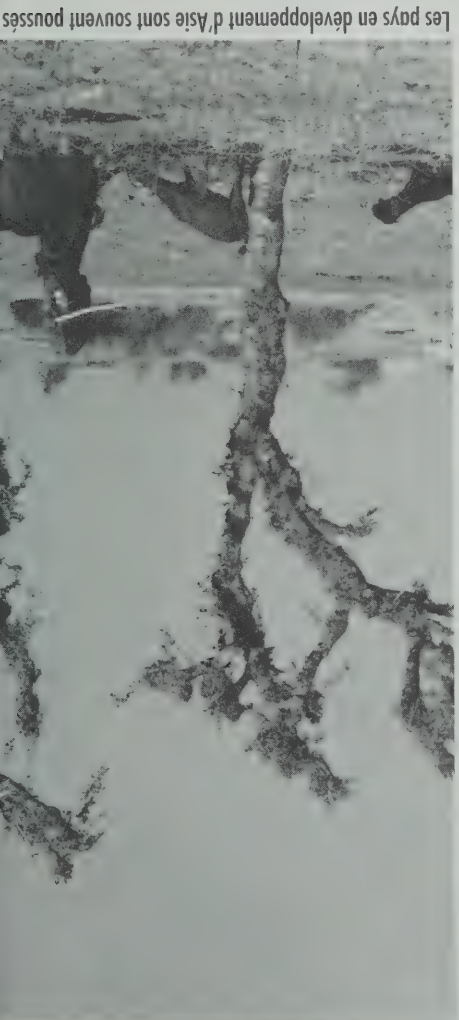
Certes, aucune région ni aucun pays n'a été épargné, mais la nature et la gravité des dommages tendent à différer selon les niveaux de développement. Dans les pays riches et industrialisés, d'importants progrès ont été réalisés grâce aux efforts et aux capitaux investis dans la recherche et les essais de dispositifs antipollution. Au Japon et à Hong Kong, le contrôle de la pollution de l'air s'est resserré avec l'adoption de mesures de surveillance et de lois efficaces. Malgré les corrections, ces pays doivent encore faire face aux graves problèmes que sont les pluies acides, la pollution de l'eau, l'accumulation des déchets toxiques, la dégradation des sols, la pollution des océans et de l'atmosphère et les niveaux dangereusement élevés de gaz carbonique.

Les pays en développement ne sont pas, comme les pays riches, en mesure de mettre en oeuvre les politiques correctives qu'ils imposent. Aussi ont-ils connu une détérioration généralisée de leur environnement. Chez eux, la principale source de pollution, non seulement sur la santé humaine, mais aussi sur la base

des ressources, assises du développement. Les pays asiatiques en développement connaissent une crise environnementale sans précédent, engendrée par la surexploitation et l'épuisement des ressources renouvelables, dont le rythme et l'ampleur ne font qu'augmenter. Les forêts se réduisent, la désertification s'aggrave, la pollution des océans augmente, les réserves d'eau s'épuisent, les laudis et les bidonvilles prolifèrent. Malgré l'accroissement de la production alimentaire des dernières décennies, des centaines de millions de personnes souffrent encore de façon chronique de faim et de malnutrition. Chez les plus démunies, les grands problèmes environnementaux apparaissent maintenant au coeur des préoccupations quotidiennes, à savoir l'alimentation, le chauffage et le logement. Ces couches sociales défavorisées sont à la fois celles qui ont avec l'environnement les rapports les plus directs et celles qui l'influencent le plus; souvent, les pauvres sont obligés de détruire les ressources dont ils ont besoin pour lutter contre la faim et la pauvreté. Cependant, ils sont loin d'être les seuls coupables. D'aucuns affirment que les politiques gouvernementales destinées à stimuler le développement économique, que sans égard aux coûts écologiques sont également à blâmer dans le drame actuel.

PRÉOCCUPATIONS RÉGIONALES

Malgré une population de plus en plus sensible à la question, le Japon doit encore mener un long et rude combat en faveur de l'assainis-



Les pays en développement d'Asie sont souvent poussés

sement de l'environnement. Au cours des 15 dernières années, le pays s'est surtout efforcé de réduire les effets dévastateurs de la pollution industrielle sur la santé et l'environnement. Au début, des progrès marquants ont été accomplis à mesure que les entreprises japonaises acceptaient d'assumer certaines responsabilités sur le plan de l'environnement. Toutefois, même ce progrès est maintenant compromis. En effet, une enquête réalisée en 1984 a montré que la qualité de l'air et de l'eau s'était gravement détériorée par rapport aux années précédentes. Dans le tiers des rivières et 60 p. 100 des lacs et des marais, la qualité de l'eau ne répond pas aux normes. L'augmentation du volume total de dioxyde de soufre, d'oxyde d'azote et d'autres types de polluants émanant des véhicules automobiles, des centrales et des usines, est considérée comme la principale cause de pluies acides dont les effets se manifestent maintenant de façon dramatique à Tokyo et dans les environs.

Malgré la nature et l'ampleur du problème, la plupart des pays de la région ont tenté de faire face de bien des façons à l'expansion dé-

mesurée de la demande. Certains ont relevé le défi de la croissance urbaine avec habileté et ingéniosité. Au cours des 20 dernières années, la quantité d'eau courante acheminée dans les villes a quadruplé, et le nombre d'habitants ayant accès aux services est passé de 39 à 70 p. 100. D'autres ont fait des progrès gigantesques en offrant, en pleine région rurale, un niveau de vie comportant un minimum d'attraits. Le Bangladesh, la Chine, l'Inde, la Malaisie, la Corée et Sri Lanka méritent de figurer au rang des pays qui ont consenti des efforts considérables pour améliorer les conditions de vie et de logement de la classe paysanne.

Dans les villes, les gouvernements ont subventionné des logements à coûts modiques pour les familles à faible revenu. L'Inde, l'Indonésie, les Philippines, la Corée du Sud et la Thaïlande, entre autres, ont entrepris d'importants programmes pour améliorer les taudis et les secteurs habités par les squatters. Mais, dans la plupart des zones urbaines, l'amélioration de la qualité de vie et la disponibilité de terrains vacants exigent de faire face aux questions les plus difficiles à résoudre. Quelque ambitieux que soient les efforts ou les objectifs en matière de logement, d'approvisionnement en eau courante et d'hygiène publique, ils semblent ne jamais être à la hauteur des besoins.

La croissance démographique va demeurer le plus grand défi du développement et de la prospérité dans les années à venir, surtout dans les pays les plus défavorisés. En l'an 2000, la population de l'Asie aura augmenté d'environ 2,25 milliards de personnes, chiffre équivalant à plus de 165 p. 100 de la population recensée en 1950. Cette croissance sans précédent, en plus d'accroître les problèmes de production alimentaire et de services urbains, aura une incidence considérable sur les écosystèmes de la région. Les signes d'épuisement de la base des ressources se manifestent déjà.



Photo ACIDI Roger Lemoyne, Inde

La croissance urbaine peut aussi bien être un bienfait qu'une calamité. Traditionnellement, les villes ont constitué d'importants pôles de développement social et économique. Mais la surpopulation, surtout dans les pays en développement de la région, représente plutôt un obstacle qu'un stimulant pour la croissance. Les énormes complexes urbains posent déjà de graves problèmes d'environnement. Les infrastructures sont soumises à des pressions excessives et les grands centres doivent faire face à de graves crises de logement, à des problèmes d'eau courante, d'électricité et de transport. Conséquence d'une urbanisation excessive, dans beaucoup de ces villes, la majorité des gens vivent maintenant dans des taudis et des bidonvilles. Selon certaines estimations, le tiers de la population de Calcutta, de Manille et de Séoul, et les deux tiers de la population de Colombo vivent dans des zones de squatters. La situation à Bangkok, à Jakarta et à Karachi est à peine meilleure, avec 20 à 25 p. 100 de la population urbaine concentrés dans des taudis et des quartiers de squatters.

Photo ACIDI: David Barbour, Bangkok, Thaïlande



Il existe cinq mégapoles de plus de 10 millions d'habitants, Tokyo, Shanghai, Calcutta, Séoul et Bombay, et 11 centres urbains de plus de 5 millions d'habitants. Plus de la moitié des grandes villes du monde sont situées en Asie. Dans 30 ans, il y aura sur la Terre au moins 15 villes ou régions métropolitaines comptant plus de 15 millions d'habitants, 37 villes de plus de 4 millions et 183 d'un million ou plus.

14. Tendances de la population urbaine en Asie et dans le Pacifique

Sous-régions	Millions d'habitants				Taux d e croissance 1960-1980 1980-2000
	1960	1980	2000		
Asie du Sud	106	222	500	110	125
Asie de l'Est*	231	448	802	90	80
Pacifique	10	16	24	60	45

* sauf la Chine

Source: State of the Environment in Asia and the Pacific, vol.1, CESAP, Bangkok 1985, p. 28

souffrent la moitié des Asiatiques en âge de procréer. Ces énormes problèmes soulignent la nécessité d'une transformation fondamentale de l'agriculture. En plus d'introduire une réforme agraire, il faut mettre en place un meilleur système d'irrigation, utiliser l'eau de façon plus rationnelle, introduire des cultures à haut rendement, obtenir plusieurs récoltes par année et, par-dessus tout, faire participer davantage la



Photo ACIDI: David Barbour, Thaïlande

Les fortes densités démographiques ont entraîné la pollution et d'autres calamités environnementales.

communauté aux programmes de conservation des sols. En l'absence de telles mesures, les écologistes craignent que la rapide croissance démographique de ces pays ne pousse un grand nombre de paysans démunis à exploiter davantage des terres peu productives. Le déboisement, l'érosion des sols et une mauvaise gestion des ressources hydriques pourraient alors entraîner une dégradation encore plus grave de l'environnement.

L'URBANISATION

Selon les critères utilisés à l'échelle mondiale, les taux d'urbanisation en Asie sont restés à un bas niveau au cours des 20 dernières années, sauf au Japon et dans les PNI. Mais cette situation est en train d'évoluer rapidement, à cause de l'expansion économique, de la croissance urbaine sans précédent et de l'exode des paysans. Les populations urbaines augmentent à un taux beaucoup plus rapide en Asie que dans la plupart des régions en développement du monde, et on s'attend à ce que le taux enregistré en 1980 double presque d'ici à la fin du siècle. En l'an 2000, les Asiatiques vivant dans des villes représenteront 45 p. 100 de la population urbaine mondiale. C'est l'Asie du Sud qui est censée enregistrer le plus important taux de croissance urbaine.

Les tendances urbaines varient considérablement dans les sous régions et les pays. À l'exception de la Chine, les pays de l'Asie de l'Est sont très urbanisés: 80 p. 100 de leurs populations vivent dans les villes. Parmi ces pays industrialisés, c'est Singapour qui a le taux d'urbanisation le plus élevé, suivi de Hong Kong, du Japon et de la Corée du Sud.

Dans le reste de l'Asie et du Pacifique, malgré d'énormes variations, c'est plutôt l'inverse: la majorité de la population vit en milieu rural. Parmi les sous-groupes, les pays de l'ANASE (Malaisie, et de l'Indonésie. La Thaïlande arrive au dernier rang, avec une population urbaine d'à peine 20 p. 100. Les taux sont même inférieurs pour les économies centralisées



de l'Indochine. Cela ne veut pas dire, toutefois, que ces économies à prédominance rurale ne connaissent pas le problème de l'urbanisation. En fait, le taux alarmant des migrations vers les villes contraste la répartition démographique et soumet à rude épreuve l'infrastructure économique et sociale existante. Les causes des migrations sont multiples, mais c'est probablement le niveau élevé des salaires qui attire le plus les gens vers les villes.

L'Asie du Sud et le Pacifique présentent un tableau très nuancé. Selon la moyenne régionale, les habitants des villes forment moins du quart de la population totale, mais les chiffres indiquent que l'urbanisation avance à grands pas. C'est au Pakistan que le phénomène est le plus visible: près de 30 p. 100 de la population vivent dans des villes. Il est suivi de l'Inde et de Sri Lanka, alors qu'en Papouasie-Nouvelle-Guinée, le taux d'urbanisation n'est que de 15 p. 100. C'est le Bhoutan qui affiche le taux le plus faible, soit moins de 5 p. 100. En Asie, les tendances urbaines révèlent une concentration croissante dans les grandes villes. Par exemple,

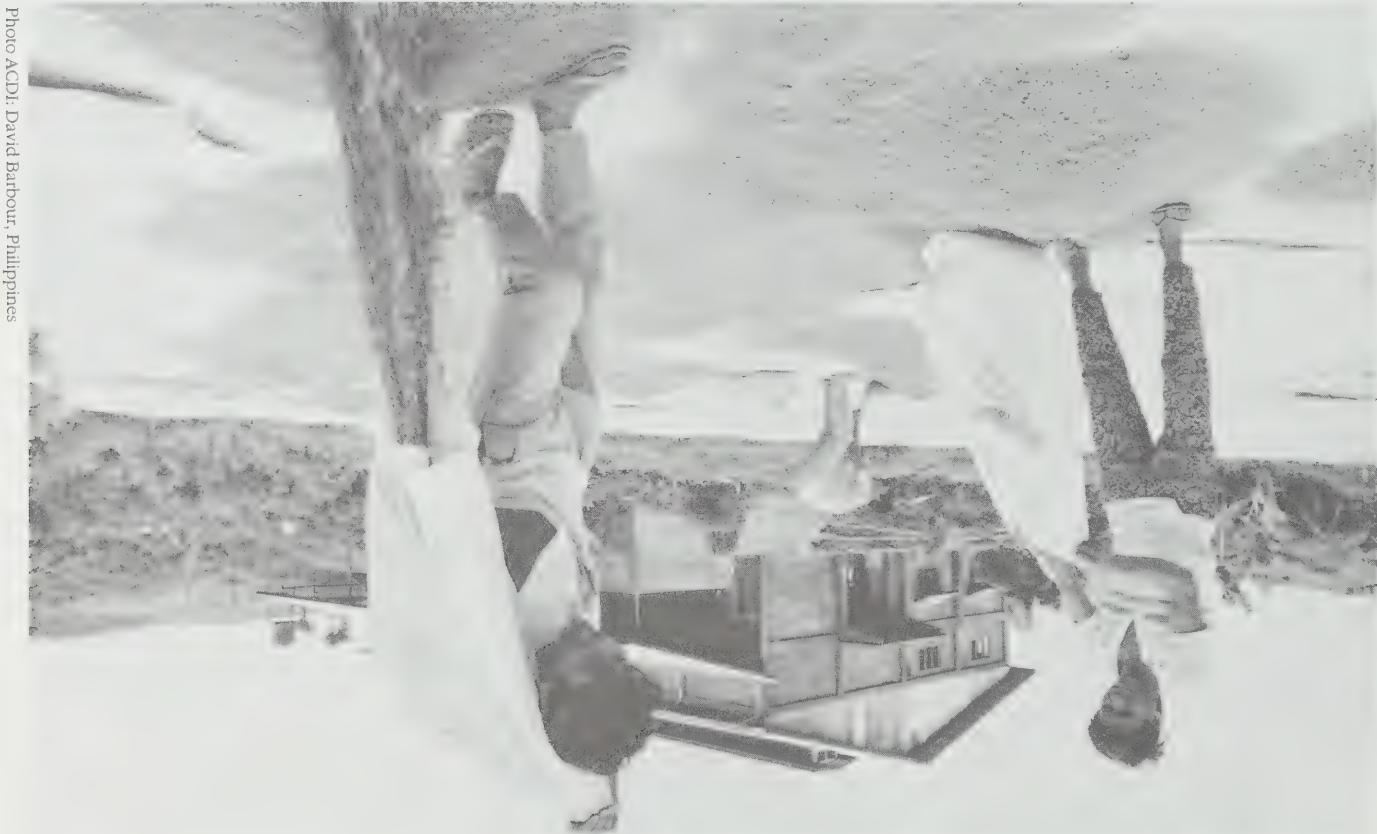


Photo ACDI: David Barbour, Philippines

TENDANCES RÉGIONALES

En général, la production de den-
rées alimentaires a légèrement
augmenté dans la plupart des pays

au cours de la dernière décennie. Les
résultats varient cependant d'un pays
à l'autre. Certains d'entre eux, comme
le Myanmar, la Chine, la Corée et la
Thaïlande, ont réussi à conserver un
niveau de production qui leur assure
l'autosuffisance et même l'exportation
de surplus aux pays voisins. D'autres
pays, comme l'Indonésie et le Bangla-
desh, qui ont été jadis de gros expor-
tateurs de riz, sont devenus des
importateurs de produits alimentaires,
par suite de l'augmentation de leur
population.

La production de denrées alimen-
taires, surtout celles qui sont riches en
protéines, est relativement élevée
dans la plupart des pays de l'Asie de
l'Est, notamment en Chine, où la
quantité quotidienne de calories par
habitant dépasse l'objectif régional,
qui est de 2 500 calories. Les niveaux
les plus élevés sont évidemment at-
teints par les pays les plus riches, soit
le Japon, Taïwan, la Corée du Sud,

Tout porte à croire que les res-
sources de la région sont suffisantes
pour subvenir aux besoins d'une po-
pulation encore plus nombreuse. Le
véritable défi consiste surtout à trou-
ver les moyens d'accroître la quantité
de denrées d'une façon durable, com-
patible avec l'environnement et qui ne
mette pas en danger la base même des
ressources.

En plus du problème causé par l'a-
limentation, il y a lieu de mentionner
le plafonnement des récoltes pour les
variétés à haut rendement dont les
tendances inquiètent à présent les
experts. Selon le *Worldwatch Insti-
tute*, la production mondiale de cé-
réales a augmenté de 2,6 fois entre
1950 et 1984, mais la progression a
constamment ralenti depuis. Une
baisse s'est produite dans plusieurs
pays parmi les plus peuplés de
l'Asie soit la Chine, l'Inde et l'Indoné-
sie. En plus des pressions exercées
par le facteur démographique, la
baisse de la productivité a d'autres
origines, dont la diminution du prix
des céréales et les contraintes impo-
sées aux agriculteurs par le manque
de terres, le déboisement, l'érosion
des sols et la mauvaise gestion des
ressources hydriques.

Singapour et Hong Kong.
Malgré une augmentation rapide
de leur population, les pays de l'Asie
du Sud-Est comme la Malaisie, l'Indo-
nésie, la Thaïlande et les Philippines
sont parvenus à atteindre le niveau
minimum de 2 250 calories par jour.
Le Myanmar et le Laos ont récemment
réussi, eux aussi, à rattraper ce
groupe.

La situation est beaucoup plus cri-
tique dans les pays les moins dévelop-
pés de l'Asie du Sud et des îles du
Pacifique, où, à l'exception de Sri Lan-
ka, les chiffres révèlent soit une dimi-
nution soit une stagnation de la
consommation. Au Bangladesh, les
pénuries de denrées alimentaires sont
graves, car, malgré les efforts pour
accroître la production, l'écart entre
l'offre et la demande se creuse
constamment. Le Pakistan et l'Inde
font face également à des pénuries
locales de produits alimentaires. Cer-
tains pays du Pacifique dépendent
presque totalement de l'étranger pour
leur nourriture. Les gens y souffrent
plus de la faim que des mauvaises
conditions d'hygiène. La malnutrition
chronique cause la mort de milliers
d'enfants et entraîne l'anémie chez la
femme enceinte, déficience dont

produire ou d'acheter la nourriture dont ils ont besoin. La question de la production alimentaire en Asie est primordiale, en particulier parce que la grande majorité des gens vivent de leurs récoltes et pratiquent surtout une agriculture de subsistance. Dans les pays à faible revenu, plus de 70 p. 100 des gens travaillent dans le secteur agricole. Même dans certains pays à revenu moyen de l'Asie du Sud-Est, près de la moitié de la main-d'œuvre tire ses revenus de l'agriculture. La productivité à l'hectare varie considérablement, les meilleurs rendements étant enregistrés au Japon et dans les nouveaux pays industriels, puis en Chine et en Asie du Sud-Est et, enfin, en Asie du Sud.

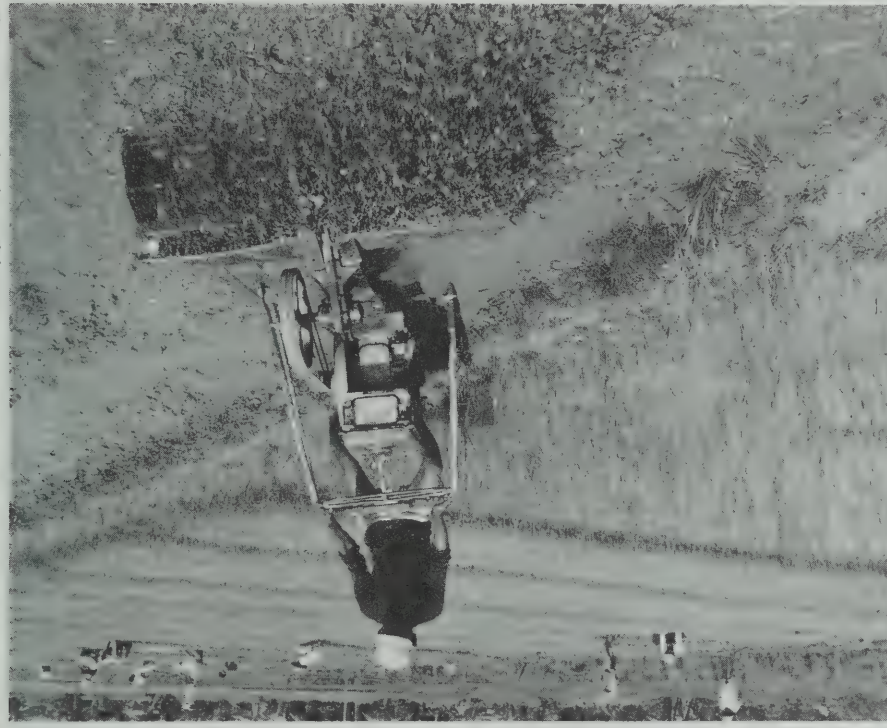
La plupart des pays se préoccupent

* Ces chiffres, basés sur la disponibilité des calories et des protéines, ont trait à l'offre et non à la consommation.
Source: Rapport sur le développement dans le monde, 1990, Banque mondiale.

Viet Nam	n.d.	2 297
Thaïlande	2 101	2 331
Sri Lanka	2 153	2 400
Singapour	2 297	2 840
Philippines	1 924	2 372
Nouvelle-Guinée	1 905	2 205
Papouasie-	1 761	2 315
Pakistan	1 901	2 052
Népal	1 917	2 609
Myanmar	2 247	2 730
Malaisie	1 956	2 391
Laos	1 800	2 579
Indonésie	2 111	2 238
Inde	2 504	2 859
Hong Kong	2 256	2 907
Corée du Sud	1 926	2 630
Chine	1 971	1 927
Bangladesh	1965	1986
Pays		

13: Calories* par jour par habitant dans quelques pays de l'Asie et du Pacifique (1965-1986)

Il y a plus de 5 000 ans, les Asiatiques avaient recours à l'irrigation et à l'assolement.



de la qualité de leurs ressources naturelles et de leur disparition rapide. Cette inquiétude est tout à fait justifiée quand on sait qu'en Asie, 11 p. 100 seulement des terres ne souffrent pas de déficiences au plan de l'exploitation. L'Asie du Sud et les îles indépendantes sont particulièrement tributaires des conditions météorologiques et des contraintes naturelles difficiles. Dans toute la région, les terres agricoles sont de plus en plus éprouvées, par suite de l'augmentation de la demande de denrées alimentaires et de fibres. Qui plus est, l'Asie a été, ces dernières années, ravagée par plusieurs cataclysmes naturels, notamment des inondations et

des sécheresses, qui ont fait chuter le rendement des cultures et augmenter les importations de denrées alimentaires. La révolution verte a vraiment changé le destin de l'Asie. Elle a permis à la région de faire face aux besoins d'une population qui a doublé, tout en rehaussant le bien-être de ses habitants en termes de régime alimentaire, de santé et d'espérance de vie. Les pays qui devaient autrefois importer des denrées pour survivre aux grandes famines sont maintenant des exportateurs nets. Mais la révolution verte n'a pas atteint tout le monde ni toutes les régions, et ses effets n'ont pas été partout positifs, comme l'illustre le tableau 13.

Le riz, élément de base dans l'alimentation des Asiatiques

Les céréales, en particulier le riz et le blé, sont les principales composantes de l'alimentation en Asie, et leur culture accapare la majorité des terres. Les rizières occupent plus de 80 p. 100 des terres arables du Bangladesh, de la Malaisie et de la Thaïlande, et plus de 50 p. 100 de celles de six autres pays asiatiques. Comme plus de 2 milliards de personnes dépendent du riz pour leur alimentation, il se peut que cette culture soit la plus importante au monde.

Répartie sur 140 millions d'hectares environ, la production mondiale de riz s'est maintenue en moyenne, ces dernières années, à plus de 400 millions de tonnes de riz en paille ou 275 millions de tonnes de riz blanchi. L'Asie

en produit près de 90 p. 100, la grande part étant consommée sur place par les paysans. Le quart est vendu, et 5 p. 100 seulement sont destinés au commerce international. À peine la moitié des plantations sont irriguées, si bien que le fragile équilibre entre l'offre et la demande mondiales dépend essentiellement de la mousson en Asie.

Photo ACIDI: David Barbout, Philippines



PRODUCTION ALIMENTAIRE

de décennie. Une telle tendance aura vraisemblablement une incidence négative sur la production alimentaire et sur les niveaux de nutrition. Si l'on se fie à certains spécialistes, l'équilibre entre la quantité de nourriture disponible et la taille de la population au cours des prochaines années dépend peut-être autant de la pratique de planification familiale que du rendement de l'agriculture.

imiter les naissances est, au mieux, une solution à moyen terme. À court terme, il s'agit plutôt de savoir si les pays sont en mesure de

de son taux de natalité, l'Inde disputera à la Chine le titre du pays le plus peuplé du monde. La tâche qui consiste à satisfaire simplement les besoins fondamentaux des pays à forte croissance démographique semble insurmontable pour une sous-région qui accuse déjà des retards par rapport au reste du monde. Au chapitre de la réduction des taux d'augmentation de la population dans les dernières décennies, les progrès réalisés dans les nouveaux pays industriels, en Chine et dans les pays de l'ANASE sont tout à fait encourageants. Cependant, la question démographique continuera d'assombrir les prévisions, car la population de la plupart des pays va enregistrer, en chiffres absolus, des augmentations sensibles au cours de la prochaine

lité de 20 p. 100 ou plus, l'Inde y compris. La situation démographique de l'Asie demeure toutefois aussi complexe que la région elle-même. De façon générale, les taux de croissance démographique diffèrent selon les sous-régions, l'Asie de l'Est enregistrant, par exemple, la plus forte diminution des taux de natalité. La population de la région a atteint son plus haut niveau d'augmentation dans les années 70, soit 2,2 p. 100. Il se situe maintenant à 1,2 p. 100 et devrait chuter à moins de 1 p. 100 en l'an 2000. Cela signifie que, dans tous ces pays, y compris le Japon, le taux de natalité demeure inférieur au niveau de remplacement, ou s'en approche. Parmi les PNI, Singapour, Taïwan et la Corée du Sud enregistrent les plus fortes diminutions du taux de natalité, soit de 65 à 75 p. 100. Or, ces pays ne représentent qu'une infime proportion de la population de l'Asie. C'est la Chine qui mène la première place au palmarès, avec une baisse du taux de natalité de 56 p. 100 au cours des 10 dernières années. En Asie du Sud-Est, les taux de natalité ont fortement diminué. Cette région est sans doute celle qui a le plus de chances, dans un proche avenir, d'afficher une faible croissance démographique. La plupart des pays ont entamé la transition vers une baisse de la natalité, mais la proportion de jeunes indique que le taux de croissance reste élevé. Deux pays en particulier, la Thaïlande et l'Indonésie, sont distingués par les nombreuses mesures qu'ils ont adoptées pour réduire leur croissance démographique. Ils ont mis en œuvre des programmes de planification familiale, et plus des deux tiers de la population pratiquent maintenant la contraception. C'est ainsi qu'ils ont pu ramener leur taux de croissance démographique à moins de 2 p. 100. L'Asie du Sud offre toutefois un contraste saisissant, et, à en croire les experts, des perspectives presque alarmantes. Elle restera vraisemblablement la région la plus peuplée du monde pour quelques décennies en core. La population du Bangladesh, de l'Inde et du Pakistan par exemple, qui était d'environ 960 millions au milieu des années 80, pourrait passer à 1,9 milliard dans un peu plus de 30 ans et atteindre 2,5 milliards dans une cinquantaine d'années. En l'an 2020, malgré une diminution de 20 p. 100

La réussite de la Thaïlande en matière de planification familiale



Photo ACIDI: David Barbour, Thaïlande

réduite de moitié. Si, aujourd'hui, quelque 70 p. 100 des couples thaï pratiquent la planification familiale, c'est en grande partie grâce aux efforts de cette organisation. La stratégie de Mechai Viravudh, essentiellement à donner aux condoms un aspect comique, avec humour et art, il a organisé des concours où il s'agissait de souffler dans les condoms, il a parrainé des «festivals de vasectomie» et distribué des T-shirts portant des slogans du genre «Un condom par jour et on se passe des médicaments» ou «Jamais plus de deux». Les mêmes slogans sont reproduits sur des briquets, des carnets d'allumettes, des crayons et d'autres articles d'usage courant. Orne d'un condom portant une inscription du genre «En cas d'urgence, déchirez l'enveloppe», le porte-câbles de planification familiale est un article bien connu en Asie du Sud-Est. Ce travail fondé sur l'humour est complet par un programme concerté d'éducation visant à aider les gens à adopter des méthodes plus raffinées pour améliorer leur mode de vie.

Cette association est devenue, dans la région, un véritable centre de partage, d'échange de connaissances en matière de développement et de planification familiale. Ses méthodes originales l'ont fait connaître partout. Par exemple, pour soutenir financièrement leur développement, les couples thaï pratiquent la planification familiale, c'est en grande partie grâce aux efforts de cette organisation. La stratégie de Mechai Viravudh, essentiellement à donner aux condoms un aspect comique, avec humour et art, il a organisé des concours où il s'agissait de souffler dans les condoms, il a parrainé des «festivals de vasectomie» et distribué des T-shirts portant des slogans du genre «Un condom par jour et on se passe des médicaments» ou «Jamais plus de deux». Les mêmes slogans sont reproduits sur des briquets, des carnets d'allumettes, des crayons et d'autres articles d'usage courant. Orne d'un condom portant une inscription du genre «En cas d'urgence, déchirez l'enveloppe», le porte-câbles de planification familiale est un article bien connu en Asie du Sud-Est. Ce travail fondé sur l'humour est complet par un programme concerté d'éducation visant à aider les gens à adopter des méthodes plus raffinées pour améliorer leur mode de vie.

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Bangkok le restaurant «Choux et condoms», le seul établissement du genre, aux dires des propriétaires, à pouvoir vous arranger une vasectomie entre deux repas. La stratégie utilisée, qui consiste à rejoindre les gens et à les faire participer, est maintenant appliquée avec succès aux projets intégrés de développement rural et aux schémas de conservation. Elle a donné des résultats remarquables.

grande partie du bouddhisme Theravada, religion pratiquée par plus de 90 p. 100 de la population. Le bouddhisme ne s'oppose pas à la limitation des naissances pratiquée dans le but d'améliorer la qualité de la vie. Il n'interdit pas la contraception et encourage les valeurs associées à l'individualisme et à la liberté d'action. Parmi les autres facteurs, il y a lieu de mentionner le rythme rapide des changements sociaux qui a encouragé les couples à avoir moins d'enfants, et les efforts déployés en vue de mettre les méthodes modernes de contraception à la portée de toute la population.

En Thaïlande, la planification familiale comporte des aspects bien particuliers qui ont contribué chacun à sa réussite: une étroite collaboration entre le gouvernement et les organisations communautaires; l'intégration, dès le début, de la planification familiale aux soins de santé existants; la souplesse et le caractère innovateur du programme.

Certains organismes privés ont également joué un rôle de premier plan dans les tentatives de réduire la croissance démographique. Le plus important, l'Association pour le développement communautaire et la population a accompli un travail remarquable d'information et de service, sans but lucratif, l'Association pour la santé des petites entreprises. Organisation privée et la santé des petites entreprises. Organisation privée et la santé des petites entreprises. Organisation privée et la santé des petites entreprises.

Un homme, en particulier, a contribué à la réussite de la Thaïlande, grâce à elle, la Thaïlande n'a jamais connu de recul en ce domaine. Un homme, en particulier, a contribué à la réussite de la Thaïlande, grâce à elle, la Thaïlande n'a jamais connu de recul en ce domaine.

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POPULATION, PRODUCTION ALIMENTAIRE ET URBANISATION

La plupart des spécialistes s'accordent pour dire que la croissance démographique influence, plus que tout autre facteur, l'avènement du genre humain.



Photo AGDI: David Barbour, Inde

Il n'est pas une région au monde où cette affirmation reflète mieux la réalité qu'en Asie, où la question démographique est essentielle à la compréhension de son évolution et des problèmes auxquels elle doit faire face.

LA MARCHÉ DES MILLIARDS

La population de l'Asie, qui était de 1,4 milliard en 1950, est passée, selon les estimations, à 2,8 milliards en 1985. Les progrès réalisés grâce à l'amélioration des techniques médicales, des soins de santé et de l'alimentation, ont permis de réduire fortement la mortalité infantile et d'allonger l'espérance de vie. La baisse de la mortalité, qui ne s'est pas accompagnée d'une réduction proportionnelle de la natalité, a fait franchir à la population le cap des deux milliards. La Chine et l'Inde, par exemple, ont doublé leur population au cours des 40 dernières années. En l'an 2000, l'Asie comptera neuf des 15 pays les plus peuplés du monde. Pour l'ensemble de la région, on prévoit que la population augmentera de 72 p. 100 en 45 ans, phénomène unique dans l'histoire de l'humanité. Le nombre d'individus passerait de 2,6 milliards en 1980 à 3,6 milliards en 2000 et à 4,5 milliards en 2025.

Le chiffre actuel de trois milliards d'êtres humains enregistré en Asie re-

présente à la fois une victoire et un défi: victoire sur les taux élevés de mortalité infantile, accroissement de la production agricole, hausse de l'emploi et progrès général des conditions de vie. Mais, du même coup, d'importants défis à relever sont apparus: il est urgent de maîtriser la croissance démographique, de continuer d'accroître la production agricole et le nombre d'emplois, et de protéger l'environnement.

La population de l'Asie en 1980 était supérieure à la population mondiale enregistrée en 1950. En l'an 2000, elle sera presque égale à la population mondiale de 1970 et on s'attend à ce qu'elle dépasse en 2025 le niveau atteint par la population de la planète en 1985.

— M. Williams, *Population in Asia*



Photo AGDI: Roger Lemoyne, Bangladesh

INFLECHIR LA COURBE DES NAISSANCES

and the Pacific, The Far East and Australasia, Europa Publications, 1988, p. 9.

« Ces tendances démographiques inquiétantes auront des répercussions sur le mode de vie, sur la cohésion familiale, sur la mobilité des individus et sur le phénomène des migrations. Elles pourraient, selon certains observateurs, provoquer des tensions sans précédent à l'intérieur des pays en développement, entre eux et même avec le monde industrialisé. »

— *Education and Development in Asia and the Pacific, Banque asiatique de développement, Manille, 1988, p. 18.*

À u cours des années, la planification familiale a connu beaucoup de succès en Asie. Conscients des incidences néfastes que peut avoir une croissance démographique non contrôlée, les dirigeants des groupes communautaires et les gouvernements ont pendant longtemps favorisé la planification familiale en soulignant son importance vitale pour l'avvenir de l'Asie. Quelques pays ont déjà réussi à freiner le rythme de croissance de leur population. Entre 1960 et 1987, la plupart d'entre eux sont parvenus à réduire leur taux de nata-

La condition féminine en Asie du Sud-Est s'est beaucoup améliorée au cours des dernières décennies. Dans la plupart des pays, les filles fréquentent l'école primaire dans une proportion de 90 p. 100, atteignant ainsi de beaucoup l'écart entre les sexes. Ce succès est dû en partie au cadre culturel, dans bien des cas favorable aux femmes. Par exemple, la culture thaï reconnaît autant d'importance à la femme qu'à l'homme. Les deux partagent les mêmes tâches et mangent côte à côte. Historiquement, les femmes de ce pays ont joué un rôle de premier plan: elles contribuent au revenu familial, fournissent des soins de santé à la communauté et participent aux tâches d'éducation. En Malaisie, la participation des femmes a été déterminante dans le succès remporté par le mouvement d'indépendance

bérale. de juge, ou toute autre profession littéraire. professeur, de médecin, d'architecte, ser les carrières d'artiste, d'écrivain, de à des postes de direction, ou embras- Aujourd'hui, la femme peut prétendre femmes dépasse celui des hommes. Singapour, le taux d'inscription des régions comme Hong Kong, le Japon et ler celui des garçons. Dans des régions au niveau secondaire, il tend à éga- des filles atteint 100 p. 100 tandis veau primaire, le taux d'inscription pleine expansion se reflète dans l'évo- par la guerre en sociétés modernes en transformé des économies ravagées

C'est aux Philippines que les femmes sont les plus scolarisées d'Asie et qu'elles occupent le plus d'emplois.

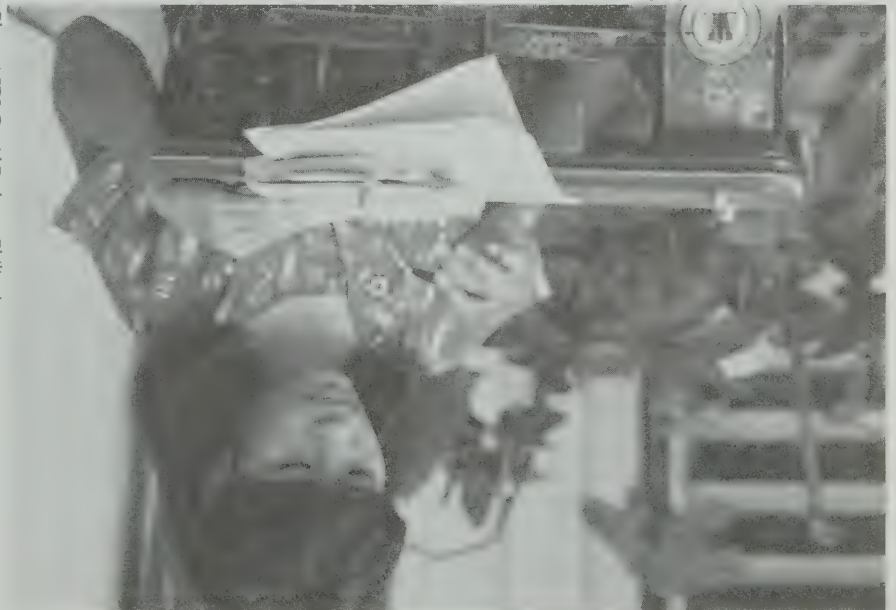


Photo ACIDI: David Barbour, Philippines

des années 40 et dans la construction du pays. Aux Philippines, les femmes contribuent très activement à la vie économique et sociale de la nation et elles ont les taux de scolarité les plus élevés d'Asie. Dans les régions urbaines, elles occupent près de la moitié des emplois dans les usines, 52 p. 100 dans le secteur des services et 66 p. 100 dans le commerce. Et pourtant, malgré tous les progrès, la femme est encore loin d'être l'égale de l'homme. Même dans les économies de type moderne, où elles ont réalisé des gains notables, les femmes souffrent encore de discrimination au chapitre des salaires et du recrutement. En retour d'un travail souvent épuisant, elles doivent se contenter d'un maigre salaire. Dans le meilleur des cas, elles gagnent les deux tiers de ce que reçoivent les

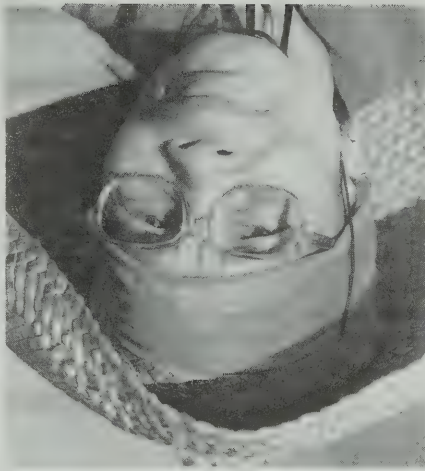


Photo ACIDI: David Barbour, Philippines

Les progrès sont indéniables, mais au plan du développement économique, la grande majorité des femmes sont encore confinées dans un rôle limité, bien que leur participation intégrale soit indispensable au processus de développement. Cette participation ne se concrétisera que si l'on fait de sérieux efforts pour éliminer les facteurs de discrimination et tout ce qui entrave leurs progrès dans l'éducation, la formation et l'emploi. Les exemples de Sri Lanka et du Kerala (Inde), deux régions à forte population rurale, démontrent clairement que lorsque l'on renverse ces barrières et que l'on ouvre aux femmes les grands secteurs d'activité, c'est la qualité de vie de toute une collectivité qui s'améliore, tout autant que la nature et le rythme du développement.

Dans la plupart des pays de l'Asie du Sud, malgré des efforts louables, l'égalité en matière d'éducation demeure un rêve à atteindre. Des facteurs historiques et religieux expliquent les disparités que révèlent les statistiques relatives à l'emploi. Des siècles de préjugés et de comportements sociaux fortement enracinés ont fait échouer aux multiples tentatives des gouvernements. À l'exception de Sri Lanka et de quelques États en Inde, le taux d'inscriptions des filles dans les écoles primaires reste faible et explique l'analphabétisme chronique qui sévit dans la population féminine. En Asie, sur cinq femmes de moins de 25 ans, quatre n'ont jamais vu la cour d'un mur d'école, et la situation est encore pire dans les campagnes. Les progrès sont indéniables, mais au plan du développement économique, la grande majorité des femmes sont encore confinées dans un rôle limité, bien que leur participation intégrale soit indispensable au processus de développement. Cette participation ne se concrétisera que si l'on fait de sérieux efforts pour éliminer les facteurs de discrimination et tout ce qui entrave leurs progrès dans l'éducation, la formation et l'emploi. Les exemples de Sri Lanka et du Kerala (Inde), deux régions à forte population rurale, démontrent clairement que lorsque l'on renverse ces barrières et que l'on ouvre aux femmes les grands secteurs d'activité, c'est la qualité de vie de toute une collectivité qui s'améliore, tout autant que la nature et le rythme du développement.

«Malgré l'importance accrue des femmes dans la main-d'œuvre, le profil de l'emploi n'a guère évolué au fil des ans. Même aujourd'hui, la plupart des travailleuses n'ont qu'un choix restreint et n'occupent que des emplois subalternes caractérisés par le bas niveau des compétences requises, la faible productivité et les salaires peu élevés.» — S. Selvaratnam, «Population and Status of Women», *Asia Pacific Population Journal*, vol. 3, no 2, juin 1988, p. 14.

hommes pour les mêmes tâches. Le plus souvent, elles sont reléguées dans des secteurs d'activité qui, partout dans le monde, sont dominés par les femmes, notamment le textile, la restauration, l'industrie légère et l'artisanat.

des grands changements à se produire à la fin de la guerre. Jadis considérées comme des êtres inférieurs, citoyens de seconde zone dans une société fondamentallement patriarcale, les Japonaises se sont depuis hissées au premier plan de la scène nationale, et leur mode de vie s'est transformé. Elles ont envahi le marché du travail et sont devenues salariées dans les exploitations agricoles et les usines, dans les écoles et les hôpitaux, dans l'administration et le milieu des affaires, et même au Parlement. Les femmes occupent des postes de ministre et elles interviennent de plus en plus dans la vie politique. Pour la première fois dans l'histoire du Japon, c'est une femme, Takako Doi, qui est à la tête du parti socialiste. Aux élections sénatoriales de juillet 1989, son parti a fait élire 22 candidates, une première dans les annales du pays. Malgré tous ces progrès, la résistance au changement demeure farouche. Selon une récente étude gouvernementale, plus du tiers des femmes et la moitié des hommes persistent à croire que la place de la femme est au foyer.



Photo ACIDI: Pui Morrow, Népal

Les pays de l'Asie de l'Est sont ceux qui ont fait les progrès les plus remarquables au chapitre de l'intégration des femmes à la vie économique. L'expérience japonaise à cet égard est significative. L'amélioration de la condition féminine fut l'un

TENDANCES RÉGIONALES

aux femmes de se libérer quelque peu des contraintes imposées par les traditions. Dans la plupart des pays de l'Asie de l'Est et du Sud-Est, par exemple, les femmes de milieu urbain ont autant de possibilités d'accès à l'éducation que les hommes. La situation est cependant tout autre dans les régions rurales: ainsi, même dans les pays industrialisés de cette sous-région, plus de la moitié des filles ne reçoivent aucune éducation scolaire. À cet égard, les Philippines, la Malaisie et la Thaïlande sont de véritables exceptions. Dans les pays moins développés, le nombre de femmes analphabètes est encore plus élevé.

En Asie, la condition de la femme est fort complexe et varie d'un pays à l'autre selon certains facteurs d'ordre économique, social et culturel. Il se rattache donc approprié de faire ici une distinction non seulement entre les femmes des pays développés et celles des pays moins développés, mais aussi entre celles qui vivent dans les villes ou à la campagne. Un peu partout, le phénomène de l'urbanisation et les occasions d'emploi qu'il a entraînées dans les centres urbains ont permis talents, qui mène la lutte pour l'instauration de la démocratie.

Dans la plupart des pays, les femmes jouent un rôle essentiel dans le développement. Dans les villes, elles dominent le secteur informel de l'économie: elles sont vendeuses ambulantes, artisanes et offrent divers services. Dans les régions rurales, elles jouent un rôle prépondérant comme travailleuses agricoles. Selon une étude réalisée par les Nations Unies, les femmes assurent de 60 à 80 p. 100 de la production alimentaire de la région. Néanmoins, leur contribution est le plus souvent sous-estimée, ou carrément passée sous silence.

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Au cours des dernières décennies, les taux d'inscription ont augmenté de façon significative dans toute la région. Malheureusement, le ratio des inscriptions ne donne pas une idée claire du nombre d'enfants d'âge scolaire qui, pour diverses raisons, ne fréquentent pas l'école. Les experts font remarquer que malgré les progrès accomplis, beaucoup trop de jeunes sont encore privées d'une éducation de base et continueront vraisemblablement de l'être. Au début des années 80, 29 p. 100 des jeunes âgés de 6 à 11 ans dans les pays asiatiques en développement étaient absents du système d'éducation. Ces chiffres reflètent la piètre performance des pays d'Asie du Sud, où le nombre absolu de jeunes ne fréquentant pas l'école va, selon les prévisions, continuer d'augmenter bien au-delà de l'an 2000. Cela est tout aussi vrai pour les adultes analphabètes, dont le nombre absolu est appelé à augmenter à cause du taux élevé de la croissance démographique.

La situation est sensiblement la même au Népal, au Bhoutan et au Laos. Tous ces pays ont un faible taux de scolarité, l'éducation étant refusée à la plupart des femmes. Les écoles primaires et secondaires enregistrent relativement peu d'inscriptions, et le taux d'abandon chez les jeunes. De plus, le nombre d'enfants d'âge scolaire augmente à un rythme assez rapide.

Les valeurs sociales, religieuses et culturelles transmises par la famille et la société sont d'importance primordiale pour la formation de la main-d'œuvre. Elles concourent à influencer l'eventail d'opportunités que les gens se font du travail, de l'excellence et de l'épargne. L'enseignement religieux, par exemple, a été un important facteur de socialisation sur le continent. Dans la plupart des pays, la tradition de l'éducation remonte aux époques les plus lointaines et est intimement liée aux grands mouvements religieux et philosophiques qui ont modelé la culture et la civilisation. L'enseignement donne

Culture, religion et alphabétisation

LA FEMME ASIATIQUE SUR LE MARCHÉ DU TRAVAIL

Les enfants à l'intérieur des temples bouddhistes aident à comprendre pourquoi le taux d'alphabétisation était si élevé durant les années 60 en Thaïlande, à Sri Lanka et au Myanmar. Cet enseignement traditionnel portait non seulement sur la lecture et l'écriture mais aussi sur l'arithmétique élémentaire. L'enseignement donne

Pendant des siècles, la femme a vécu en Asie dans une situation de dépendance et de soumission. La prédominance de l'homme dans la plupart des cultures asiatiques explique en bonne partie le fait que les femmes ont un statut inférieur, que leur taux de mortalité est très élevé à

12. Tableau partiel de la situation des femmes en Asie

		Inde		Népal	Pakistan	Thaïlande	Chine	Philippines
PNB/hab. en \$ US 1988		340	180	350	1000	330	630	
Alphabétisation des adultes (%) 1985		femmes	29	11	18	87	55	87
		hommes	58	34	43	95	80	88
Taux d'inscriptions (%) à l'école primaire		filles	81	47	28	n.d.	140	105
		garçons	113	104	51	n.d.	124	107
Main-d'oeuvre féminine en % de la main-d'oeuvre totale			26	34	12	45	43	32
Espérance de vie (années) 1988		femmes	58	51	55	68	66	66
		hommes	58	52	55	63	69	62

Source: Banque Mondiale, Rapport sur le développement dans le monde 1990. UNICEF, La situation des enfants dans le monde 1991. PNUD, Rapport mondial sur le développement humain 1990.

Toutefois, les choses changent rapidement, mais à des rythmes différenciés. Au cours des dernières décennies, les femmes asiatiques se sont imposées comme une force sociale des plus dynamiques. Elles ont effectué des percées dans divers secteurs du marché de l'emploi: professeurs, industriel, religieux, commercial et juridique. Même en politique, elles ont réussi de remarquables incursions. L'augmentation du nombre de femmes aux postes de chef d'Etat n'est pas passée inaperçue. En 1966, l'Inde élisait, pour la première fois, une femme premier ministre en la personne d'Indira Gandhi. En 1986, Corazon Aquino accédait à la présidence des Philippines. Bénéazir Bhutto devenait la première à occuper le poste de premier ministre dans un pays islamique. Au Myanmar, c'est Suu Kyi, une jeune femme pleine de

1. Indicateurs-clés du niveau d'éducation dans certains pays d'Asie

tiques confirment certaines tendances sous-régionales. En général, les niveaux de scolarité du Japon et des NPI sont les plus élevés de la région. Dans ces pays, la famille tout autant que la société accordent une place de choix à l'instruction. Pour offrir à l'ensemble de la population un niveau élevé de scolarité, les NPI ont déployé bien des efforts. Ainsi, la Corée du Sud et Taïwan ont réussi à relever de façon très appréciable le niveau de scolarité de leurs habitants. Il est important de noter que ces pays ont poussé l'éducation de base obligatoire jusqu'au

Taux
d'alphabétisation
des adultes
brut (niveau
primaire) 1985
Total
1987
Total

Bangladesh	32	59
Bhoutan	32	24
Chine	68	132
Corée du Sud	95	101
Fidji	86	129
Hong Kong	88	106
Inde	44	98
Indonésie	72	118
Kiribati	96	100
Laos	84	111
Malaisie	74	102
Myanmar	78	81
Népal	22	82
Pakistan	26	52
Papouasie-Nouvelle-Guinée	31	70
Philippines	88	106
Singapour	86	116
Sri Lanka	87	104
Taiwan	89	100
Thaïlande	91	95
Tonga	78	100
Viet Nam	84	102

Source: Rapport sur le développement dans le monde 1990, Banque mondiale. 1991, UNICEF



Une garderie au Bangladesh.

niveau secondaire. Depuis une dizaine d'années, les gouvernements ont augmenté, à la demande de la population, la proportion du PNB consacrée à l'éducation, ce qui explique les fortes augmentations des dépenses consacrées à l'enseignement. Le montant élevé des sommes utilisées pour relever la qualité de l'enseignement secondaire et universitaire reflète l'esprit des grandes orientations politiques: d'une part, la production de biens et de services de qualité, et d'autre part, le recours plus systématique aux bureaux d'ingénieurs de la région et à des pratiques de gestion innovatrices.

Les pays de l'Asie du Sud-Est suivent une démarche similaire. Presque partout, les enfants fréquentent maintenant l'école élémentaire et le taux d'inscription brut dans les premières classes du secondaire a augmenté de 50 p. 100. C'est le cas aux Philippines, à Sri Lanka et en Malaisie, où le niveau moyen de scolarité est sensiblement le même que dans les NPI. La Thaïlande et l'Indonésie ont eux aussi consenti des efforts considérables pour relever le niveau de scolarité de leur population active. Les campagnes d'alphabétisation du Myanmar et du Viet Nam ont connu un succès appréciable. Le Viet Nam en particulier a enregistré des taux d'inscription bruts assez élevés dans ses écoles primaires et secondaires.

Le niveau moyen de scolarité des



Photo AGDI: David Barbour, Bangladesh

pays de l'Asie du Sud, exception faite de Sri Lanka, ne se compare pas favorablement à celui de l'Asie du Sud-Est ou à celui des îles indépendantes du Pacifique. Toutefois, il faudrait éviter de passer sous silence les progrès accomplis. En Inde, par exemple, de 1961 à 1981, la proportion de la population active n'ayant jamais fréquenté l'école a diminué du tiers. Les taux d'inscription bruts dans les écoles primaires sont passés de 74 p. 100 en 1965 à 92 p. 100 en 1985. Le taux d'inscription dans les écoles primaires du Bhoutan a pour sa part triplé, celui du Népal quadruplé.

Le Pakistan et le Bangladesh ont fait face à d'énormes contraintes, de sorte que les progrès y ont été assez modestes. En 1986, moins de 60 p. 100 des enfants fréquentaient l'école. Les deux pays doivent à la fois s'accommoder du plus bas niveau d'inscription scolaire et du plus haut taux de croissance de population d'âge scolaire. Une des principales tâches du pays consiste à étendre le système d'éducation primaire aux zones rurales, où l'enseignement est encore de piètre qualité et où le taux d'inscription dans les écoles secondaires est relativement faible.

Au moment de son accession à l'indépendance, l'Inde a dû s'attaquer à une énorme obligation: scolariser une population aussi vaste que disparates. En 40 ans, elle aura réussi à étendre son réseau d'enseignement primaire au point que plus de 90 p. 100 des

Le passé colonial de l'Asie, qui remonte au XVIII^e siècle, a profondément marqué les systèmes d'éducation. Pendant plus de deux siècles, l'éducation a été sélective, stratifiée et fondée sur un système de récompenses conduisant à des emplois dans la fonction publique ou dans l'administration coloniale. En Inde, en Asie du Sud-Est et en Indonésie, les puissances coloniales n'ont fait aucun effort véritable pour éten-

Perspectives historiques

EDUCATION

Pement qui fournissent des données sur l'espérance de vie à la naissance réparties selon le sexe, l'Indonésie et la Thaïlande rapportent que les femmes vivent plus longtemps que les hommes, alors que c'est l'inverse en Inde et au Népal.

10. Taux de mortalité infantile dans certains pays d'Asie et du Pacifique (pour 1 000 naissances d'enfants vivants)

Pays	1960	1989	1995-2000
Bangladesh	156	116	96
Bhoutan	187	125	109
Chine	150	31	23
Corée du Sud	85	24	18
Fidji	71	26	20
Inde	165	96	77
Indonésie	139	73	64
Laos	155	106	74
Malaisie	73	23	15
Myanmar	153	67	49
Népal	187	125	99
Pakistan	163	106	79
Papouasie-Nouvelle-Guinée	165	58	42
Philippines	80	44	35
Singapour	36	8	6
Sri Lanka	71	27	24
Thaïlande	103	27	27
Viet Nam	156	61	45

Source: United Nations World Populations Prospects 1988, New York 1989.
The State of the World's Children 1991, UNICEF

dre l'éducation aux zones rurales, où était concentrée la plus grande partie de la population. Depuis leur accession à l'indépen-

En Asie, les programmes d'enseignement ont fonctionné dans le cadre de politiques destinées à généraliser l'accès à l'enseignement. Cependant, dans plusieurs pays, les réalités socio-économiques et les préjugés fondés sur le sexe ont entravé la poursuite des buts et des objectifs que s'étaient fixés les gouvernements. Des données récentes sur le taux de réussite scolaire dans les pays asia-

Tendances régionales

dance, les pays d'Asie ont déployé des efforts considérables pour corriger les carences que leur avait léguées le régime colonial. L'Indonésie, par exemple, est parvenue à tripler son taux d'alphabétisation, qui était de 20 p. 100 au début de l'après-guerre. La mise en place dans tous les pays d'un système d'écoles publiques, offrant des chances égales à tous, constitue une réalisation remarquable. L'accès à l'éducation s'est considérablement amélioré au cours des années 60 et 70. Durant cette période, le nombre de jeunes inscrits dans les écoles de tous niveaux allait doubler pour atteindre 450 millions au début des années 80, tandis que le nombre d'enfants d'âge scolaire ne fréquente tant pas un établissement d'enseignement diminue rapidement.



LA MISE EN VALEUR DU CAPITAL HUMAIN

SANTÉ

« Bien plus que l'absence de maladie, la santé est plutôt cet équilibre délicat qui permet à l'organisme de fonctionner au meilleur de ses capacités. Du point de vue communautaire, l'équilibre est atteint lorsque la plupart des membres de la société sont en santé, c'est-à-dire capables de pourvoir à leurs besoins et à ceux de leurs concitoyens moins productifs : enfants, vieillards et malades. »

— *Développement, «Santé», biver 1988-1989, ACIDI.*

L'Asie a fait des pas de géant au chapitre des soins de santé primaires. Au cours des dernières décennies, la plupart des pays asiatiques ont graduellement mis en place leur régime de soins de santé au profit d'une portion de plus en plus importante de leur population. Dans l'ensemble, les chiffres démontrent que plus de 70 p. 100 des nourrissons et des femmes enceintes en Asie ont maintenant accès aux soins. Conséquence directe : le niveau de santé de la population s'est de beaucoup amélioré, ce qui a entraîné une baisse constante, et d'ampleur équivalente, des taux de mortalité. La multiplication des installations de santé, le recours accru au personnel médical et à la formation, l'implantation de la médecine communautaire et l'accès aux soins sont au nombre des facteurs à l'origine des progrès accomplis jusqu'ici. Les programmes

Dans les pays d'Asie du Sud, malgré tous les progrès accomplis, l'état de santé de la population et les taux de mortalité demeurent déplorable. Au Bangladesh, au Népal et au Bhoutan, moins de 45 p. 100 de la population bénéficient de soins primaires.

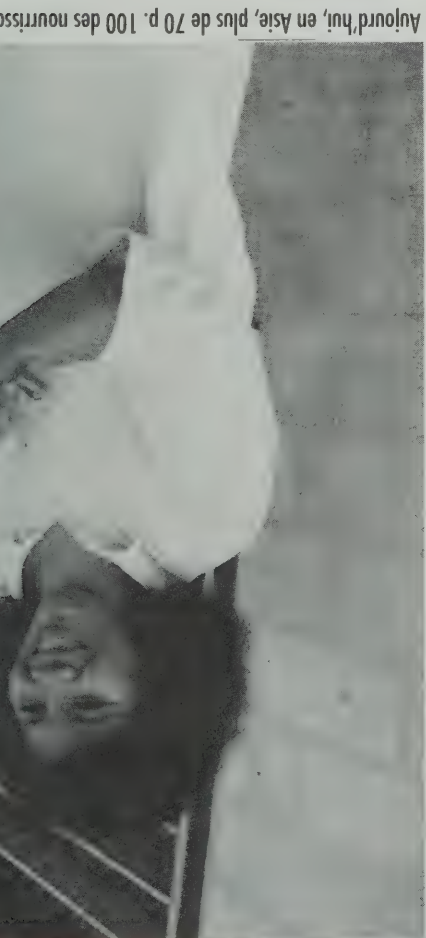
d'approvisionnement en eau potable et d'hygiène publique ont pris de plus en plus d'importance et des gains appréciables ont été enregistrés au chapitre de l'alimentation et de la nutrition. Toutefois, les progrès n'ont pas été uniformes. Certains pays ont fait une percée remarquable tandis que d'autres piètent. L'examen des principaux indicateurs de santé nous aidera à mieux saisir certains des défis qui se posent au niveau des sous-régions.

Ce sont les pays de l'Asie orientale qui ont fait les progrès les plus spectaculaires. Plus de 90 p. 100 de leur population ont maintenant accès à des soins de santé primaires. Le taux de mortalité des femmes en couches a diminué de façon significative. Le taux de mortalité infantile a quant à lui

chuté de moitié, et l'espérance de vie a augmenté en moyenne de 10 à 15 ans au cours des 20 dernières années. Certains progrès importants ont été accomplis même en Chine, où un vaste réseau d'établissements médicaux et de travailleurs de la santé a été mis en place, particulièrement dans les domaines de la planification familiale et des soins prodigués aux mères et aux enfants. Les pays d'Asie du Sud-Est ont eux aussi considérablement étendu leur réseau de soins de santé, à un point tel que plus des deux tiers de la population bénéficient maintenant de soins de santé primaires. Au Myanmar, le taux de mortalité infantile est tombé

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Les parents seront maintenant en mesure de réduire de moitié, sinon davantage, d'ici la fin de la décennie, le taux de mortalité infantile enregistré en 1980.



Aujourd'hui, en Asie, plus de 70 p. 100 des nourrissons et

Partie 2: Développement social, population et environnement

De nos jours, il est généralement admis que le développement va au-delà de la croissance économique. Le développement concerne d'abord et avant tout les gens, leurs aspirations, la façon dont ils utilisent leurs ressources, leurs aptitudes et leur créativité en vue de relever leur niveau de vie. Nulle part dans le monde, cet aspect n'a été mieux reconnu qu'en Asie. La région doit une grande partie de sa vitalité au niveau de santé et d'instruction de sa main-d'œuvre. Au cours de cette deuxième partie, l'auteur s'attarde à quelques-unes des principales réalisations qui ont marqué les domaines de la santé et de l'éducation, en particulier la contribution des femmes au courant général du développement, ainsi que les relations complexes entre la démographie, les ressources et l'environnement.

Par souci de clarté, cette étude fait état des divers facteurs en cause, mais le lecteur ne devrait pas perdre de vue qu'ils sont étroitement liés et s'influencent constamment. Ainsi, des recherches ont confirmé qu'il existe de fortes corrélations entre le degré d'éducation des femmes et les tendances à la baisse de la natalité et de la mortalité des nouveau-nés et des enfants en bas âge. Un meilleur régime alimentaire, le recours plus fréquent aux soins de santé et une situation économique favorable sont autant de conditions qui encouragent les femmes à s'instruire. De même, les pressions démographiques, le niveau de production alimentaire et le rythme d'urbanisation ont des conséquences d'une portée considérable sur l'environnement.

Sri Lanka connaît le taux d'inscription de jeunes filles à l'école primaire le plus élevé de l'Asie du Sud.

Photo ACIDI: Dilip Mehta, Sri Lanka



Les perspectives de reprise sont assez bonnes, avec la remontée des prix mondiaux des produits de base. Des réformes majeures au plan des politiques économiques ont redonné confiance aux investisseurs. L'accroissement de l'aide technique et économique de la communauté internationale a également été d'un grand secours dans la reprise économique d'un grand nombre d'îles indépendantes du Pacifique.

«Les îles du Pacifique se trouvent dans une position peu enviable, car elles sont prisonnières du dilemme du développement. En tant que lieux de tourisme et territoires sous tutelle des États-Unis, elles sont exposées à l'influence de la société occidentale de consommation et d'abondance, sans vraiment posséder les ressources qui leur permettraient de se développer. C'est peut-être la façon dont ces îles releveront le défi du développement qui déterminera la richesse et l'import-

La corvée ménagère aux îles Samoa.



en Papouasie-Nouvelle-Guinée et dans les îles Samoa et Vanuatu. Les Fidji font toutefois exception: grâce à une industrie touristique florissante, leur PIB a enregistré une augmentation supérieure à 9 p. 100 en 1986.

Photo ACDI: Hélène Tremblay, Samoa occidentales

LA PAPOUASIE-NOUVELLE-GUINÉE SUR LA VOIE DU DÉVELOPPEMENT

tance relatives de la région du Pacifique dans les années à venir.»
—R.H. Jackson et L.E. Hudman, dans *World Regional Geography*, J. Wiley & Sons, New York, 1986, p. 422.

C'est le plus grand pays de cette sous-région formée des îles du Pacifique. Avec plus de trois millions d'habitants, c'est aussi l'île la plus peuplée. Au début des années 80, le secteur choc pétrolier et la récession mondiale qui en a résulté ont gravement perturbé l'économie, dont la croissance annuelle n'a été que de 2,5 p. 100, soit un peu plus que le taux d'augmentation de la population. En 1985, le pays s'est engagé sur la voie de la reprise et, depuis, il progresse à un taux moyen de 4,6 p. 100, en grande partie grâce à la croissance des exportations, celle du secteur minier en particulier. Les cultures commerciales, qui représentaient 20 p. 100 environ du PIB, ont aussi enregistré une vive remontée, à la faveur de la hausse des prix du café, du cacao et du coprah. Sous l'influence de ces deux facteurs, la balance commerciale s'est

nettement améliorée. En 1988, le pays a enregistré, pour la première fois, un excédent commercial et les perspectives de croissance économique restent assez favorables. Les recettes d'exportation permettront vraisemblablement à l'économie de réaliser un taux annuel de croissance du PIB d'environ 4 p. 100 au cours des prochaines années. La hausse des importations étant inférieure à celle des exportations, la Papouasie-Nouvelle-Guinée devrait continuer d'accroître son excédent commercial, et de ramener ainsi sa dette extérieure à environ 75 p. 100 de son PIB.

Malgré ces tendances économiques favorables, le pays va continuer à faire face à de graves problèmes d'emploi, à cause d'un développement peu rapide du secteur non minier et de la croissance de la main-d'œuvre. Les perspectives économiques à moyen terme dépendent largement de la performance du secteur minier et des cultures commerciales ainsi que du succès des nouvelles réformes entamées cette année, qui visent la création d'emplois et la réduction des disparités régionales au chapitre des revenus. À long terme, la poursuite de la croissance économique dépendra de la capacité du pays d'attirer des investissements étrangers et de surmonter certaines de ses principales faiblesses structurelles.

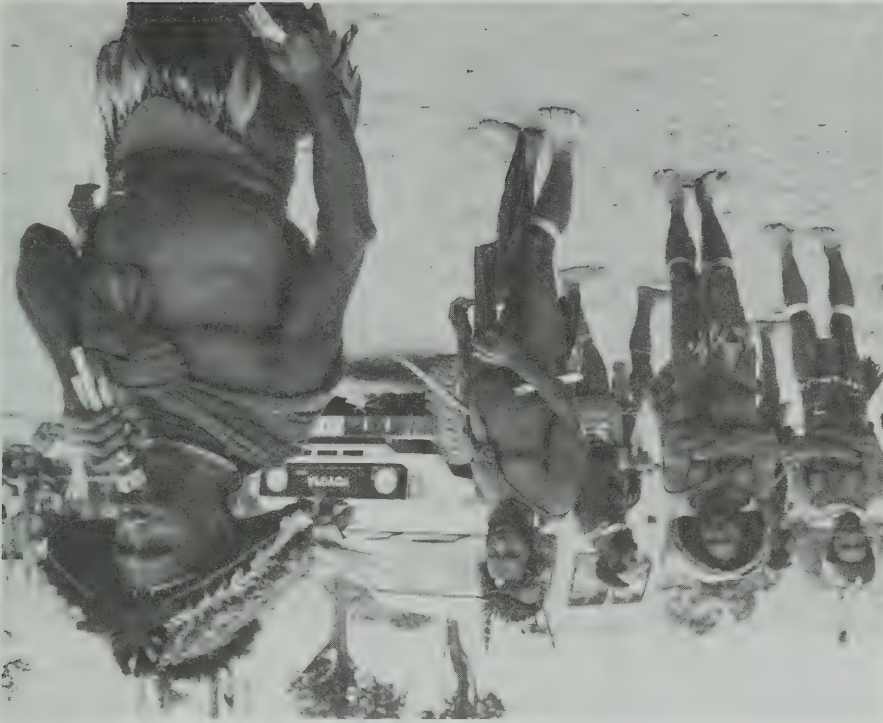


Photo ACDI: Graham Sim, Papouasie-Nouvelle-Guinée

LES ÎLES DU PACIFIQUE: UN DEVELOPPEMENT INEGAL

La région du Pacifique,
connue aussi sous le nom
d'Océanie, se divise en
trois groupes d'îles: la
Mélanésie, la Micronésie
et la Polynésie.

Voisine des archipels de l'Asie du Sud-Est, la Mélanésie s'étend de la région continentale du Sud-Est jusqu'à l'Australie. Elle comprend beaucoup de grandes îles: les Salomon, Vanuatu, les Fidji, la Nouvelle-Calédonie et la plus étendue, la Papouasie-Nouvelle-Guinée. La Micronésie englobe quelques îles volcaniques et de petits atolls d'origine corallienne, situés dans le nord, le centre et l'ouest du Pacifique, y compris Kiribati, Nauru, Mariannes et Gilbert et l'archipel placé sous tutelle des Etats-Unis: les Marshall. La Polynésie couvre le plus vaste territoire, de Hawaï au nord jusqu'à l'île de Pâques dans le sud-est et la Nouvelle-Zélande dans le sud-ouest. En font partie les Samoa occidentales, Niue, les îles Cook, les Samoa orientales (ou américaines), Tonga, Tuvalu, Wallis-et-Futuna, et la Polynésie française.

Les niveaux de développement économique varient considérablement dans la région. La Micronésie et la Polynésie ont des niveaux de vie élevés, mais, sauf pour Nauru, aucune des îles n'est indépendante sur le plan

pêche de subsistance se pratique en groupes ou en familles. La pêche commerciale — surtout la pêche au thon — est plus récente. Jusque dans les années 70, elle était surtout le fait de navires étrangers venus du Japon, de Taïwan et de la Corée, en grande partie parce que les îles ne disposaient pas d'équipements modernes. Cette situation a poussé quelques petites îles indépendantes à développer leur propre industrie de la pêche. Les îles Fidji, Salomon, Kiribati, Tuvalu, les Samoa occidentales et la Polynésie française ont établi leur propre flotte commerciale. Avec l'instauration de la zone économique exclusive de 200 milles, l'industrie de la pêche dans ces îles promet de devenir une source majeure d'emplois et de revenus.

Les îles de l'Océanie rencontrent plus de 8 p. 100 dans les îles Salomon, lade des cours. Le PNB réel a chuté de souffert de déboires dus à la dégringolade des prix des produits de base et des conditions météorologiques défavorables. Au milieu des années 80, la plupart des îles indépendantes ont servi dans les nouveaux pays industriels de l'Asie du Sud-Est.

De plus ces économies sont tributaires des exportations de produits agricoles de base, tels que la noix de coco, le café, le cacao et la canne à sucre, dont les prix ont grimpé ces dernières années.

Pendant la dernière décennie, l'économie des îles en développement du Pacifique a été en grande partie influencée par l'instabilité persistante des prix des produits de base et des conditions météorologiques défavorables. Au milieu des années 80, la plupart des îles indépendantes ont souffert de déboires dus à la dégringolade des cours. Le PNB réel a chuté de plus de 8 p. 100 dans les îles Salomon,

Les mêmes obstacles que les autres petits Etats. Eparpillées dans l'Océan Pacifique, elles sont isolées du reste du monde. Les coûts de transport sont souvent très élevés. Elles souffrent d'un désavantage de leur isolement à cause de leur petite taille qui restreint énormément les possibilités d'implanter des usines de fabrication ou de transformation. De plus, ces économies sont tributaires des exportations de produits agricoles de base, tels que la noix de coco, le café, le cacao et la canne à sucre, dont les prix ont grimpé ces dernières années. Elles n'ont donc eu guère de possibilités de bénéficier du développement ob-



Photo ACIDI, Hélène Tremblay, îles Salomon

PERSPECTIVES INÉGALES

que restera encore longtemps une contrainte majeure dans les tentatives de modernisation de l'économie.

L'Inde fait face à de grandes contraintes économiques. Depuis cinq ans, l'expansion des exportations a contribué à améliorer la balance des paiements, mais le pays doit encore faire face à un déficit persistant et chronique. Cette situation s'explique partiellement par le fait que l'Inde, comme la plupart des pays du tiers monde, n'avait pas assez de ressources pour financer ses programmes de développement. Le pays a dû emprunter, d'abord à des conditions de faveur puis, une fois que le flux des emprunts a diminué, aux taux d'intérêt en vigueur sur le marché. Ces dernières années, les prêts commerciaux ont grimpé de plus de 140 p. 100, ce qui a précipité le déficit commercial et la dette extérieure.

La dette extérieure est un autre sujet de préoccupation. Depuis quatre ans, elle a augmenté de 65 p. 100, dépassant ainsi le cap des 50 milliards de dollars en 1988. À ce chapitre, l'Inde se situe au quatrième rang des pays en développement, après l'Argentine, le Mexique et le Brésil. La pression que cela exerce sur l'économie se reflète dans le poids du service de la dette, qui a plus que doublé depuis cinq ans, passant de 12 à 26 p. 100.

Ces dernières années, l'économie de l'Inde a enregistré une croissance constante et les perspectives d'avenir sont bonnes. Certains spécialistes prédisent que le taux annuel de croissance du pays pourrait atteindre 7 à 8 p. 100 au cours des cinq prochaines années. À moyen terme, le plus grand défi de l'Inde consistera à faire en sorte que la croissance économique se traduise par des progrès sociaux et par des améliorations du niveau de vie... Et le chemin qui reste à parcourir est long. L'éducation, la santé et le bien-être continuent de recevoir moins de la moitié des sommes que l'Inde affecte aux armements. Le facteur démographique et les problèmes d'ordre environnemental qui y sont reliés sont de nature à entraver les efforts que déploie le pays pour garantir une vie meilleure à tous.

L'eau potable est une préoccupation quotidienne dans beaucoup de pays de l'Asie.



Photo ACDI. Dihip Mehta, Inde

une forte incidence sur la capacité du pays à satisfaire ses besoins sociaux élémentaires, tels que l'éducation et les soins de santé. Offrir l'instruction primaire à plus d'un demi-million de villages est au-delà des possibilités actuelles de l'Inde.

Plus grave encore le fait que la croissance démographique contraint un grand nombre à une vie de privations. Selon des estimations récentes, plus de 210 millions d'habitants qui s'entassent dans les taudis urbains ou dans les campagnes de l'Inde vivent en dessous du seuil de pauvreté, même selon les pires normes du pays, soit avec moins de 100 dollars par année. Malgré les efforts et certains résultats dignes de mention, l'Inde détient le triste record mondial du plus grand nombre de démunis: aujourd'hui, un pauvre sur quatre est indien. Pour amortir le contrecoup de la vague démographique, l'Inde devra accomplir de vrais tours de force: élargir sa base industrielle, relever les rendements de son agriculture et multiplier le nombre de ses dispensaires et de ses écoles.

Comme la croissance démographique est au coeur de tous les efforts déployés par l'Inde au chapitre du développement, le pays a mis en oeuvre divers programmes visant à enrayer le rythme. Même si tous n'ont pas tous été couronnés de succès, ils sont quand même parvenus à infléchir quelque peu la courbe de la natalité. Cependant, le facteur démographique a

maines de la santé, de la médecine et de l'hygiène, le taux de mortalité a baissé depuis 30 ans. Mais il ne s'est pas produit de baisse correspondante du taux de natalité, de sorte que la population continue d'augmenter à mesure que la base s'élargit. Beau-coup de gens croient que seule la croissance démographique peut expliquer l'extrême état de pauvreté de l'Inde, le pire au monde. L'Inde doit consentir d'énormes sacrifices simples pour ne pas dépasser son niveau actuel. Pour prouver ce point de vue, on souligne que la croissance économique de l'Inde s'est chiffrée en moyenne à 3,5 p. 100 entre 1950 et 1980, soit davantage que celle du Canada durant la même période. Mais une augmentation de 2 p. 100 a réduit de moitié les effets de cette victoire si durement acquise. En d'autres termes, c'est au facteur démographique qu'il faut attribuer le taux de croissance de 1,4 p. 100. Si la population de l'Inde était demeurée stable depuis 1947, poursuivrait les tenants de cette thèse, l'accroissement du revenu annuel par habitant aurait été de quatre à cinq fois supérieur.

De fait, c'est sa démographie in-domptable qui complique tous les problèmes de l'Inde. Les nouveaux capitaux sont absorbés par l'agriculture et l'industrie simplement pour nourrir, abriter et vêtir ceux qui naissent, ce qui empêche tout essor économique digne de ce nom. L'accroissement démographique a

si bien que le paysan typique, fermier sans terre ou travailleur urbain par défaut, vit encore au seuil de la misère.

LA REVOLUTION VERTE

Toutes les orientations politiques prises en Inde depuis 30 ans ont marqué l'évolution de l'agriculture.

On a d'abord assisté au développement du secteur agricole, suivi par l'expansion des terres cultivées. La deuxième phase a débuté en 1967 avec l'introduction des variétés de blé, de riz et de maïs à rendement élevé. La révolution verte, telle qu'on l'appelle aujourd'hui, n'aurait pas eu lieu sans l'irrigation et l'utilisation accrue d'engrais et de pesticides. La produc-

tion de céréales vivrières a triple entre 1950 et 1987. Malgré ces améliorations, les défis que l'Inde doit relever sont considérables, puisque le pays doit nourrir une population plus nombreuse que celle des États-Unis avec moins de terres cultivables. De plus, la croissance démographique du pays exige une augmentation du rendement des céréales, si l'on ne veut pas voir réduire la quantité de nourriture disponible par habitant. Pour maintenir simplement la consommation à un niveau minimum, la production de céréales doit augmenter de plus de 2,3 millions de tonnes par an.

En quelques dizaines d'années, l'Inde est devenue le pays le mieux irrigué du monde grâce aux investissements massifs que le gouvernement a effectués pour améliorer le système d'irrigation et augmenter la producti-

Le village en Inde, un mode de vie

pulation. Certains vil-
 lages ont connu très peu
 de changements dans
 leur mode de vie depuis
 des siècles, sauf en ce
 qui concerne la concen-
 tration de la richesse
 entre les mains de quel-
 ques propriétaires fon-
 ciers. Le travail y est
 encore exécuté à la main
 ou avec l'aide d'animaux.
 Les gens assez fortunés
 pour posséder un bien

rité du secteur agricole. Il reste cepen-
 dant beaucoup à faire. Alors que cer-
 tains États sont assez productifs, d'autres sont encore loin d'avoir at-
 teint les objectifs nationaux.
 Cette réussite n'empêche pas cer-
 tains spécialistes de prétendre que la
 révolution verte n'est qu'une solution
 temporaire. Les problèmes de l'agri-
 culture, disent-ils, n'ont pas été réso-
 lus, mais simplement reportés. À
 l'appui de leurs dires, ils soulignent
 certaines lacunes de la politique agri-
 cole de l'Inde. Seules, certaines
 régions du pays affichent une crois-
 sance de la production des céréales
 vivrières, ce qui en limite les bienfaits.
 La région du Pendjab produit, à elle
 seule, plus de 60 p. 100 de la produc-
 tion céréalière du pays. Les procédés
 modernes de culture sont limités à la

production vivrière. Aucune perte dans la recherche de variétés à haut rendement, telles que les légumineuses et les oléagineux. Enfin, les faiblesses structurelles, comme le nombre croissant de paysans sans terre, la petite taille des fermes, le manque de capitaux pour l'achat d'intrants modernes et la concentration des propriétés foncières sont de nature à entraver la productivité à long terme.

LA CROISSANCE DÉMOGRAPHIQUE ET LE PIÈGE DE LA PAUVRETÉ

La taille de sa population classe l'Inde au deuxième rang des pays les plus peuplés du monde. Et elle augmente à un rythme encore plus rapide que celle de la Chine. Le nombre d'habitants a doublé depuis 30 ans et pourrait encore doubler au cours des 50 prochaines années. Il augmente actuellement à un taux annuel de 2 p. 100, soit de 15 millions de personnes par année, ou 40 000 par jour. En l'an 2000, il dépassera le cap du milliard.

Le problème démographique de l'Inde est le problème classique des pays en développement. Par suite des améliorations apportées aux do-



Photo ACID: Roger Lemoyne, Inde

L'Inde atteinte de la fièvre de la consommation

Les signes de cette nouvelle prospérité se voient dans la plupart des villes. Les voitures luxueuses ne font plus l'exception. Les magasins et les boutiques de mode, qui tentent de satisfaire cette nouvelle clientèle, font des affaires d'or. La récente vague de prospérité a stimulé la concurrence internationale. Pour être à la hauteur de cette société d'abondance, le professionnalisme et l'efficacité sont considérablement accrus dans la publicité et la mise en marché.

C'est dans le secteur de l'immobilier que l'activité est la plus remarquable. Les prix des propriétés ont grimpé dans tous les grands centres urbains. À Bombay et à New-Delhi, les promoteurs immobiliers ont réalisé d'énormes profits en spéculant sur les terrains. La ville de Bangalore est devenue un vrai chantier de construction où poussent comme des champignons édifices à bureaux, tours à appartements et maisons de banlieue. En Inde, la classe moyenne constitue un marché immense, jamais égale, qui regroupe, selon les chi-

Les étrangers sont frappés par la nouvelle ère de prospérité que traverse l'Inde. Le pays connaît un phénomène nouveau et inévitable, la montée surprenante d'une classe moyenne prospère. Par le passé, il semblait n'y avoir que deux classes: les maharajahs et les propriétaires terriens prodigieusement riches, et les autres, qui semblaient vivre au seuil de l'indigence. En réalité, il a toujours existé une petite classe moyenne, composée en grande partie de fonctionnaires, de militaires haut gradés et de cols blancs, mais elle manquait d'influence politique ou économique.

UN SECTEUR MANUFACTURIER EN PLEIN ESSOR

L'industrie a passé par différentes étapes. Au début, la stratégie de développement de l'Inde était axée sur la constitution d'un secteur de biens d'équipement, ce qui devait permettre d'épargner des devises étrangères plutôt rares. Très tôt, les dirigeants du pays firent observer que la politique de remplacement des importations, héritée de l'époque coloniale, découlait de conditions qui prévalaient à l'origine telles que l'immensité du pays, de sa population et de ses ressources naturelles.

TROIS OMBRES AU TABLEAU:
LA PRODUCTION
ALIMENTAIRE, LA CROISSANCE
DÉMOGRAPHIQUE ET
LA PAUVRETÉ

pour l'Inde les perspectives prometteuses d'une croissance soutenue d'environ 7 à 8 p. 100 pour les prochaines années.

UNE ÉCONOMIE EN MUTATION

Depuis 30 ans, l'Inde s'efforce d'adapter son économie à l'évolution généralisée des structures et des nouvelles orientations. Résultat de ces bouleversements, l'Inde semble se diriger aujourd'hui vers l'industrialisation et tourner le dos à l'agriculture, et cela, malgré un accroissement de sa production céréalière. La productivité agricole est maintenant deux fois plus élevée qu'en 1950. Son économie s'est ouverte, et la concurrence intérieure est plus forte. Dans ce nouveau contexte, la fonction publique et la défense nationale ont connu une croissance rapide: leur part du PIB a triplé au cours des 40 dernières années. Mais, parmi tous les changements qui ont secoué l'Inde, aucun n'est aussi manifeste que le gonflement de la classe moyenne et l'expansion d'une industrie axée sur les exportations. D'une certaine façon, ces deux caractéristiques se complètent et permettent de grands espoirs pour l'avenir économique du pays.

population du Canada, qui insufflé son dynamisme au secteur privé. Cette classe aisée alimente un des marchés qui, par sa taille et son taux d'expansion, se classe parmi les premiers au monde. En raison de l'influence politique et économique qu'elle exerce sur la région, l'Inde s'est élevée au rang de puissance dominante en Asie du Sud. Et, avec la quatrième armée du monde en importance, le pays est aussi en train d'aspirer à un rôle militaire à l'échelle mondiale.

Les défis que l'Inde doit relever sont aussi gigantesques que ses réalisations. En terme de PNB par habitant, elle se classe parmi les 20 pays les plus pauvres du monde. Malgré des améliorations sensibles, plus du quart de la population vit encore sous le seuil de pauvreté. Une malnutrition endémique afflige encore certains États. En dépit des progrès, l'espérance de vie est de 55 ans, soit l'une des plus basses du monde. Les taux d'alphabétisation sont inférieurs à 40 p. 100 et le niveau de chômage demeure alarmant.

Ses compétences au chapitre de la recherche et du développement ont permis à l'Inde de faire une percée remarquable dans des domaines d'avenir tels que l'énergie nucléaire, la construction d'avions de combat supersoniques et de satellites. De ses industries d'avant-garde sortent des ordinateurs à la fine pointe du progrès, des missiles et des turbines géantes. Sa technique de pointe en télécommunications et en électronique classe l'Inde parmi les pays industrialisés du monde. Et c'est une classe moyenne instruite, de six à huit fois plus nombreuse que la

siècle. Et la liste s'allonge. Au cours des 40 dernières années, les progrès réalisés par l'Inde au chapitre du développement industriel sont comparables à ceux qu'a connus l'Angleterre dans ses plus beaux jours. Avec un PNB de plus de 300 milliards de dollars, l'économie de l'Inde est devenue l'une des plus dynamiques au monde; quant à la quantité et la qualité de sa main-d'œuvre, elle arrive au troisième rang, après les États-Unis et l'Union soviétique.

De plus grande importatrice de denrées alimentaires au monde, l'Inde est devenu un pays excédentaire.



Photo ACDI: Dilip Mehra, Inde

Bombay, porte d'entrée de l'Inde moderne



Photo ACDD: David Barbour, Bombay, Inde

sur rue, et un grand nombre de multinationales ou de filiales ont leur siège social dans cette ville grouillante d'activité. L'odeur de l'argent flotte partout dans Bombay, et tout le monde semble la humer fébrilement. Même le sort des habitants des bidonvilles, si épouvantable pour les Occidentaux, y semble moins tragique qu'ailleurs, du moins aux yeux des Indiens. Depuis six ans, Bombay connaît son plus grand essor du siècle. Le commerce fleurit et la Bourse prospère. L'année dernière, Bombay a affiché une performance économique supérieure à celle des grandes villes des pays industrialisés les plus riches. Les joailliers du monde entier convergent sur Bombay devenue le plus grand centre diamantaire. De nos jours, on estime que deux diamants sur trois dans le monde sont taillés à Bombay, ce qui place cette ville parmi les marchés les plus lucratifs de l'Asie. Les signes de cette nouvelle opulence sont visibles partout: rues, boutiques de

Traditionnellement, Bombay a toujours été la ville la plus prospère de l'Inde. Capitale financière, le centre commercial le plus important du pays attire des milliers de paysans à la recherche d'un meilleur niveau de vie. De nos jours, avec ses 8,5 millions d'habitants, Bombay détient le record mondial de densité démographique. La ville loge l'ensemble des emplois du secteur industriel en Inde. Près d'une douzaine de banques étrangères y ont pignon

triales de l'Inde ont leur siège social à Bombay. Par le port de Bombay transitent plus de conteneurs que dans l'ensemble des autres ports du pays. Fenêtre ouverte sur l'Occident, Bombay est aussi devenu un pôle d'attraction pour les investisseurs étrangers. À elle seule, la ville four-

locale, des sociétés d'ingénierie en in-

formatique.

Ces dernières années, la forte

performance de l'économie a donné

un vigoureux coup de fouet à la

demande, stimulé la diversification et

réduit la vulnérabilité du pays aux

mauvaises conditions météorolo-

giques. En plus d'améliorer son statut

économique, l'Inde a aussi accru de

façon sensible sa capacité de nourrir

sa population. Il lui arrive même

d'exporter, à certains moments, des

excédents. Les grandes famines

semblent bien être choses du passé,

mais la pauvreté demeure toujours

un fléau.

Avec ses contrastes frappants,

l'Inde reste pour la plupart des étran-

gers un des pays les plus complexes

du monde. Ce qui déconcerte la ma-

jorité des Occidentaux, c'est que le

pays est à la fois traditionnel et avant-

gardiste, riche et pauvre, sous-déve-

loppé et développé.

Malgré l'état de pauvreté impi-

toyable dans lequel croupit près de la

motité de sa population, l'Inde peut

senorgueillir de réalisations extraor-

dinaires: tel est son paradoxe."

— Dr Milton Israel, *«Canada and the*

New India, Issues, Fondation Asie-

Pacifique du Canada, été 1987.

C'est un fait qu'en Inde les manifes-

tations de mondes antagonistes ne

manquent pas. D'un côté, l'Inde an-

cienne où sévissent la pauvreté, la

malnutrition et la maladie, c'est le lot

de plusieurs centaines de millions de

personnes qui luttent pour leur survie

dans un environnement impitoyable,

population sans défense livrée aux

métails de la mousson et régulière-

ment menacée de famine. Mais il y a

aussi l'Inde moderne et ses villes tré-

pidantes comme New Delhi, Bombay

et Bangalore, des secteurs de fabrica-

couches de classes moyennes qui vi-

vent dans l'abondance. Les contrastes

dent, si complexes et si difficiles à

saisir qu'on ne peut se permettre au-

cune généralisation sur ce pays.

LES RÉALISATIONS ET LES DÉFIS

L'Inde est à la fois une société archaïque et moderne. Sa culture remonte à 3 500 ans, mais l'Inde n'est indépendante que depuis une quarantaine d'années. Ses réalisations au cours des quatre dernières décennies sont vraiment remarquables. Le fait que l'Inde ait survécu en tant que nation aux nombreux conflits ethniques et aux guerres avec les pays voisins est déjà en soi un exploit. Il est remarquable que l'Inde ait pu préserver, en dépit de son étendue et de ses difficultés, les grands principes démocratiques reconnus universellement, telle l'universalité du droit de vote. Mais c'est l'augmentation de la production alimentaire, qui a transformé le plus grand importateur de denrées du monde en un pays excédentaire, qui constitue sa prouesse la plus spectaculaire du

mode, halls d'hôtels et gratte-ciel étalent leur luxe. Les nouveaux immeubles à appartements, tout en étant plus abordables, rivalisent avec ceux de New York, de Londres ou de Paris. Les hommes d'affaires de la ville sont convaincus que leurs produits sont d'aussi bonne qualité que n'importe où ailleurs. C'est à leur dynamisme qu'il faut attribuer l'ouverture de nouveaux marchés. Mais Bombay est plus qu'une métropole économique, c'est aussi le centre de la presse et de la création artistique. La production cinématographique dépasse celles de Hollywood et de l'Europe réunies. Les installations destinées à la vie culturelle et aux loisirs à Bombay sont parmi les plus prestigieuses de la région, et un grand nombre de quotidiens nationaux y ont établi leur siège social. Malgré les problèmes de congestion urbaine et de surpopulation, Bombay mérite bien sa réputation de porte d'entrée de l'Inde.

9. Structure du produit intérieur brut et de l'emploi dans les pays de l'Asie du Sud

Produit intérieur brut 1965 1988
% de la main d'œuvre 1965 1985-87

Bangladesh		
agriculture	53	46
industrie	11	14
services	36	40
Inde		
agriculture	47	32
industrie	22	30
services	34	38
Pakistan		
agriculture	40	26
industrie	20	24
services	40	49
Sri Lanka		
agriculture	28	26
industrie	21	27
services	51	47
agriculture	42,4	56
industrie	12,0	14
services	45,6	30

Source: Rapport sur le développement dans le monde 1990, Banque mondiale.
Rapport mondial sur le développement humain 1990, PNUD.

développement contrôlés par l'Etat laissent une certaine place au capitalisme. Ce choix se justifiait pleinement: d'une part, le secteur privé n'avait pas la capacité, au moins au début, d'investir dans les industries de base et les infrastructures et d'en assurer le financement; d'autre part, les leaders politiques de ces pays étaient convaincus de la nécessité de l'intervention gouvernementale pour réduire la pauvreté et les inégalités. Cependant, à plus d'un titre, les résultats ne furent pas à la hauteur des attentes. Un vent de réformes souffle aujourd'hui sur la région: les pays de l'Asie du Sud s'ouvrent au commerce international et entreprennent la diversification de leurs économies. Suivant l'exemple de certains pays de la ceinture du Pacifique, ils ont adopté des stratégies de développement axées sur les exportations et misent davantage maintenant sur les forces du marché et les investissements étrangers. Avec cette nouvelle orientation, le secteur industriel de la région a trouvé un nouveau souffle et une résistance accrue. Ainsi, le Pakistan a enregistré un taux de croissance de 6,5 p. 100, tandis que ses exportations progressaient, en termes réels, à un taux annuel supérieur à 11 p. 100 au cours de la dernière décennie. En Inde, une augmentation des exportations de 13 p. 100 en 1988 a permis à l'économie d'enregistrer, en dépit d'une dure sécheresse, un taux de croissance de 9 p. 100. Même le Bangladesh est en train d'augmenter fortement ses exportations, tandis que le Népal vend maintenant de plus en plus à l'étranger. Selon les spécialistes, cette évolution du commerce extérieur et la politique industrielle de ces pays permettent d'augurer un accroissement de leur efficacité sur le plan économique.

L'INDE

L'Inde est de loin le plus grand pays du sous-continent. C'est aussi le pays le plus peuplé. Dans le passé, les grandes famines qui accablaient périodiquement le pays frappaient l'imaginaire du monde entier par la cruauté des ravages que causaient les sécheresses. Les images d'animaux et-



En Inde, les programmeurs en informatique sont parmi les plus reconnus au monde.

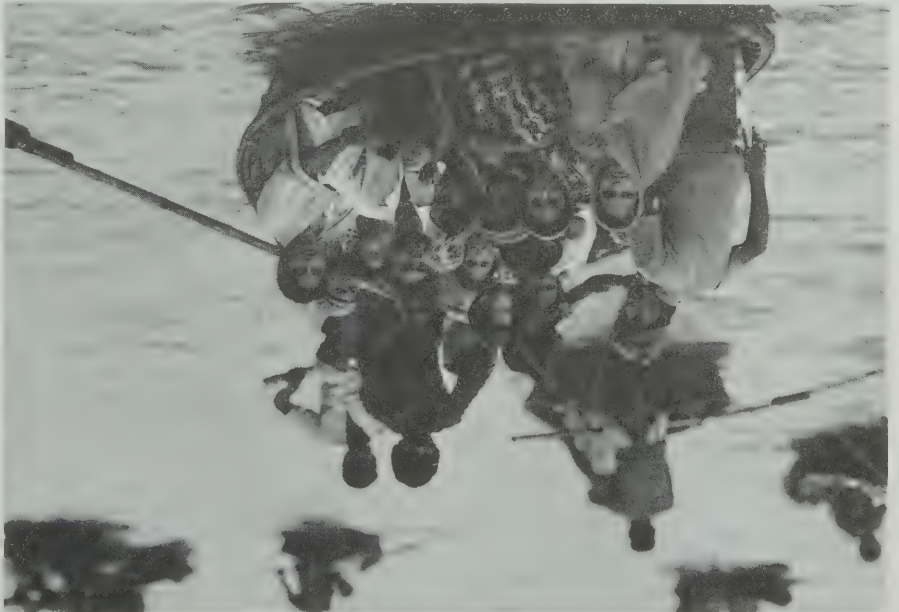
Photo ACIDI: Dulp Mehta, Inde

Les deux fleaux du paysan sud-asiatique: la sécheresse et les inondations

L'ÉVOLUTION DE LA CONJONCTURE ÉCONOMIQUE

naïenne. C'est justement parmi les paysans qui n'ont même pas un fond de terre qu'on retrouve des taux de malnutrition plus élevés, un niveau d'éducation plus faible et une espérance de vie plus courte qu'ailleurs. Or, être démuné à ce point en région rurale constitue un sérieux handicap dans la lutte pour la survie.

Pendant plus de trois décennies, les pays de l'Asie du Sud ont surtout adopté des politiques de remplacement des importations pour stimuler leur croissance économique. Ils visaient ainsi à corriger l'ancien statut colonial, où la spécialisation dans les produits de base et les industries axées sur l'agriculture étaient la norme. Dans le but de protéger les industries naissantes, ils ont institué des droits à l'importation élevés et assujetti les produits étrangers à des restrictions de ce type. Ils ont en outre adopté un modèle de développement reposant sur l'économie mixte, c'est-à-dire une économie où les plans de



Durant la mousson, la population du Bangladesh subit des inondations catastrophiques.

croissant de paysans sans terre. C'est d'ailleurs en Asie du Sud qu'on retrouve le plus vaste bassin de population sans terre au monde. C'est maintenant le cas de plus de 30 millions de foyers au Bangladesh, en Inde et au Pakistan. Si l'on se fonde sur une moyenne de six personnes par famille, le total de cette catégorie équivaut, pour l'ensemble du sous-continent, à six fois la population ca-

En Asie du Sud-Est, toute la vie est dominée par l'agriculture, dont les populations ont toujours tiré leur subsistance et qui demeure pour la plupart de ces pays la principale et presque la seule source de revenus. Dans les pays en développement de la région, elle contribue encore à plus de 50 p. 100 du PIB, emploie 80 p. 100 de la population active et fournit plus de la moitié des exportations. Dans les économies plus progressives de l'Inde et du Pakistan, les importants changements accomplis depuis une trentaine d'années ont permis à l'industrie et aux services de se développer au détriment de l'agriculture. Malgré tout, celle-ci n'en reste pas moins le principal mode de vie de la majorité de la population répartie, en

Inde, dans plus d'un demi-million de villages. Dans l'ensemble, la performance de ces économies agraires a été assez moyenne, à cause, entre autres facteurs, des nombreuses contraintes qui pèsent de tout leur poids sur le secteur agricole. Les plus graves tiennent à la faible capacité de production des terres, à l'accroissement de la population active et au manque de capitaux. Mais pour les paysans de l'Asie du Sud, les pires fleaux sont les périodiques inondations et sécheresses qui s'abattent sur eux dans le sillage de la mousson. L'Inde, le Népal, Sri Lanka et le Bangladesh, plus particulièrement, ont été frappés par de nombreuses catastrophes naturelles au cours des dernières

années. La sécheresse, les inondations ou encore les effets combinés des deux phénomènes ont des conséquences incalculables pour ces économies rurales et une incidence grave à la fois sur le taux de croissance et le niveau de vie. Depuis 10 ans, les inondations, par exemple, ont coûté à l'Inde plus d'un milliard de dollars annuellement, uniquement en dégâts matériels. Déjà, responsables des industries agro-alimentaires dans le marasme et imposent de graves pénuries d'énergie à tous les autres secteurs. L'augmentation des déficits budgétaires et la réduction des dépenses publiques leur

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Malgré tout, la région démontre une capacité de plus en plus grande à surmonter ces désastres. Alors qu'il y a quelques dizaines d'années une sécheresse de l'ampleur de celle de 1987 aurait répandu la famine et causé d'innombrables ravages dans plusieurs pays, les dégâts se sont surtout traduits par un ralentissement de la croissance économique. Par suite de l'augmentation des réservoirs d'irrigation, des investissements et du nombre des entrepôts, ainsi que de l'adoption de procédés assurant de meilleures récoltes, la production agro-alimentaire a beaucoup perdu de sa vulnérabilité.

L'ÉMERGENCE DE L'ASIE DU SUD

L'Asie du Sud, qu'on

nomme également le sous-

continent indien, se compose

de l'Inde, du Pakistan, du

Bangladesh, du Népal, du

Bhoutan et de Sri Lanka.

Les pays du sous-continent indien, comme ceux de l'Indochine, font partie de la vaste catégorie des pays en développement. Le revenu par habitant est aussi faible que le niveau de vie, et la situation des populations sans terre dans les zones rurales de

La géographie physique est complexe et variée, autant au niveau du relief que du climat, depuis les hautes montagnes de l'Himalaya au nord jusqu'à la plaine côtière au régime tropical qui borde la péninsule. Trois grands systèmes hydrographiques influent sur la vie de la région : l'Indus à l'ouest, le Gange au nord et le Brahmapoutre à l'est et au nord-est. Le déboisement intensif a provoqué une érosion massive des sols et ce phénomène a accéléré l'ensablement de ces fleuves qui, maintenant, débordent régulièrement de leur lit pendant la mousson, causant d'incalculables pertes en vies humaines et détruisant les récoltes et les biens.

LES CARACTÉRISTIQUES COMMUNES DES PAYS DE L'ASIE DU SUD

Une meilleure connaissance du passé de la région permet de mieux évaluer tout le chemin qu'elle a parcouru. Exception faite du Bhoutan et du Népal, tous ces pays étaient encore des possessions britanniques à la fin

Pourtant, malgré ces obstacles démographiques, ces pays ont réussi à faire des progrès substantiels au cours des 30 dernières années. Ainsi, l'espérance de vie a augmenté dans tous les pays de l'Asie du Sud. L'auto-suffisance alimentaire est une question réglée ou en voie de l'être, en dépit de la natalité accrue. On relève également une amélioration au niveau de la fréquentation scolaire chez les fillettes, tandis que la condition féminine gagne partout du terrain. Le fait qu'il reste encore tant à faire ne devrait pas masquer les progrès accomplis. Si moins d'autres n'en sont pas moins exemplaires dans leur contexte.

même que les problèmes de logement et de chômage dans les centres urbains ont atteint un seuil critique. En général, le taux d'industrialisation y est plus faible que dans les autres pays d'Asie. L'analphabétisme y est très élevé, tout comme les taux de mortalité infantile et maternelle qui sont les plus hauts de toute l'Asie. La réduction du taux de croissance démographique, l'accélération et l'intensification des investissements et une amélioration du rendement dans tous les domaines font également partie des problèmes à surmonter.

Une forte croissance démographique représente une menace commune pour la plupart de ces pays. L'Asie du Sud, dont le taux de natalité a augmenté en moyenne de 2,2 p. 100 par année au cours de la première moitié des années 80, devrait demeurer la région la plus peuplée du globe pendant encore quelques décennies. Sa population, qui s'établit actuellement à plus de 1,5 milliard d'habitants, devrait passer à quelque 2 milliards d'ici à l'an 2000 et frôler 2,7 milliards une vingtaine d'années plus tard. Le Bangladesh, dont la superficie équivalait à celle des Maritimes, est déjà quatre fois plus peuplé que le Canada. Au

BIENTÔT DEUX MILLIARDS

des années 40. Le colonialisme a eu un tel impact sur ces sociétés que leurs particularités géographiques, leur culture, leur civilisation et leurs structures économiques en ont été bouleversées. Leurs valeurs culturelles ont été ignorées ou bafouées, et l'éducation limitée à sa plus simple expression. Depuis l'accession de ces pays à l'indépendance, de nombreuses études ont révélé à quel point leurs économi- mies se sont détériorées par suite de l'état d'asservissement dans lequel le monde industrialisé les avait mainte-



Photo ACDI: David Barbour, Inde

Incapables d'exporter beaucoup de produits de base et n'ayant à peu près aucune infrastructure liée à l'exportation de produits manufacturiers, ces pays sont actuellement plongés dans une crise économique. Pour essayer de s'en sortir, ils ont amorcé d'importantes réformes, après avoir compris que

es pays qui forment l'Indochine communiste ont bien des défis à relever. Leurs économies sont en mauvais état, quand ce n'est pas carrément en faillite. Malgré les immenses efforts et les concessions tout aussi énormes consentis par la population, l'autoinsuffisance — principal objectif de ces pays communistes — en est encore au stade du vœu pieux. Ces pays ont des points communs, qui caractérisent habituellement les économies moins développées. Le revenu par habitant est très bas et l'indice de la qualité de vie est de beaucoup inférieur à celui des NPI et des pays de l'ANASE. Le secteur manufacturier n'emploie qu'un pourcen-

L'INDOCHINE COMMUNISTE

concurrentiels au cours des prochaines années. L'expansion du commerce intrarégional est un autre facteur qui vient justifier cet optimisme prudent. Pour ces économies qui continuent leur percée dans le secteur manufacturier, le Japon, Hong Kong, Singapour et Taïwan représentent des débouchés importants. La pénétration de ces marchés lucratifs assurera aux pays de l'ANASE un avenir véritablement prometteur.



seules la libéralisation du commerce et l'adoption de mesures relevant du libre marché peuvent permettre une croissance économique soutenue. Ces réformes ont déjà commencé à porter des fruits et les perspectives semblent nettement meilleures, même si l'inflation demeure toujours à un niveau critique. Le Laos et le Viet Nam, par exemple, ont été incapables d'endiguer la flambee des prix, surtout le Viet Nam qui, depuis trois ans, est aux prises avec le plus fort taux d'inflation de toute la région. Les déficits élevés du secteur public et le faible taux de l'épargne expliquent partiellement la situation. En outre, la mise en veilleuse de la politique de régulation des prix et les programmes

de libéralisation ont diminué encore plus la capacité de résistance de ces pays aux pressions inflationnistes. C'est pourquoi, malgré certains progrès, leur taux d'inflation demeurera beaucoup plus élevé que dans la plupart des autres pays de l'Asie du Sud-Est. Les pays communistes de l'Indochine semblent engagés dans un remaniement de leurs structures économiques. Il est fort possible que, d'ici la fin du siècle, le Viet Nam, le Myanmar et leurs voisins aient adopté des mesures de libéralisation, semblables à celles qui existent déjà en Chine et en Union soviétique. Si tel est le cas, les débouchés qui s'offrent aux investisseurs en Asie continueront de se multiplier.

8. Données relatives au développement de l'Indochine

Pays	Population (millions) 1989	Mortalité infantile* 1989	PNB par habitant 1988 (\$ US)	Taux d'alphabétisation (%) 1985
Myanmar	40,8	67	220	78
Laos	4,0	106	180	84
Cambodge	8,1	127	n.d.	75
Viet Nam	65,3	61	240	84

* Nombre de décès pour 1 000 naissances.

Sources: Rapport sur le développement dans le monde 1990, Banque mondiale. La situation des enfants dans le monde 1991, UNICEF.

L'AVENIR

deux tiers de la croissance industrielle. Si jamais elle est menée à bien, la répartition du revenu renforcera le pouvoir d'achat de la population. Et la réduction des disparités régionales devrait permettre le développement régulier du secteur manufacturier et de celui des services. En définitive, le plus grand défi économique de la Thaïlande consistera peut-être à accroître et à diversifier sa production industrielle et à passer à la phase suivante: mettre l'accent sur les produits intermédiaires et s'orienter finalement vers des secteurs manufacturiers à plus forte prédominance de capital.

Tout permet de croire que les pays de l'ANASE poursuivront leur croissance à un rythme modéré. Grâce à leurs bas salaires et à leur potentiel industriel, ils demeureront clairement

les réseaux de télécommunications, sont engorgées. À cela viennent s'ajouter le déficit commercial, le manque d'emplois et les disparités régionales qui vont en s'accroissant. On prévoit à court terme une augmentation du déficit commercial et de la dette extérieure à cause de la nécessité d'importer des biens d'équipement qui permettront de construire de nouvelles usines ainsi que des matières premières destinées aux industries d'exportation. Le secteur de l'emploi pourrait lui aussi connaître des difficultés avec l'arrivée, chaque année, d'un nombre considérable de jeunes sur le marché du travail.

À long terme, les problèmes liés à

À long terme, les problèmes liés à la répartition du revenu et aux disparités régionales risquent d'entraver les efforts du pays. Malgré une performance remarquable en 1988, le développement économique des zones rurales est loin d'égaliser celui des villes et plus particulièrement de la capitale. Le Bangkok métropolitain n'abrite que 15 p. 100 de la population, mais il fournit 46 p. 100 du PIB et assure les

Cependant, le pays fait face à plusieurs problèmes. Le maintien de sa compétitivité et du dynamisme de ses exportations représente un défi d'une importance majeure parce que cela implique la suppression des goulets d'étranglement au niveau des infrastructures du transport, des communications et de l'énergie. De l'avis de beaucoup, la circulation dans les rues de Bangkok est parmi les pires de toutes les capitales asiatiques. Des infrastructures industrielles de base, comme les installations portuaires et

multiplée par l'abondance de ses ressources naturelles autant que par son urgent besoin de développement. Son économie diversifiée, sa main-d'œuvre expérimentée et son faible taux d'inflation sont autant d'atouts qui augmentent sa compétitivité sur ces marchés. Par ailleurs, l'émergence d'une classe moyenne instruite semblerait favoriser la stabilité en matière de développement social et économique. En résumé, tous les indicateurs annoncent une croissance régulière au cours des prochaines années.



Photo ACDI: David Barbour, Thaïlande

7. Les investissements étrangers en Thaïlande

Projets approuvés 1986 - 1988 (en millions de baht)

	1986		1987		1988	
	Nombre	Valeur	Nombre	Valeur	Nombre	Valeur
Total *	148	25 211	367	54 400	410	75 740
Japon	35	14 421	130	23 548	132	28 032
Taiwan	23	2 330	100	7 309	145	6 923
E.-U.	14	904	35	5 025	46	8 405
Europe	35	5 185	51	6 900	54	18 798
Hong Kong	19	1 965	31	3 334	35	2 516
Singapour	7	396	16	1 714	26	2 951

Source: Asian Finance, 15 octobre 1988.

en plus considérables, l'équilibre maintenu entre l'agriculture, l'industrie et les services explique, entre autres, cette croissance exceptionnelle. En 1988, après deux ans de marasme causé par la sécheresse, l'agriculture a connu une hausse de 8,6 p. 100. Dans l'ensemble, le rendement a augmenté de 6 p. 100 et la production de sucre et du caoutchouc ont connu une envolée variant entre 38 et 50 p. 100 en 1987. Ce redressement du cours des produits de base s'est directement répercuté sur le revenu et le pouvoir d'achat des paysans qui forment 70 p. 100 de la population.

Finalement, le principal moteur de cette croissance a été l'augmentation considérable à la fois des exportations et des recettes provenant du tourisme et de l'industrie des services. En 1988, les exportations ont grimpé de 30 p. 100, pour la troisième année consécutive. Du reste, les industries qui produisent des biens d'exportation fonctionnent à pleine capacité. Le secteur des services, qui englobe le tourisme et la finance, connaît lui aussi un très bon rendement. En 1988, l'afflux de plus de 4,5 millions de visiteurs étrangers s'est traduit par une hausse de 30 p. 100 des recettes engendrées par le tourisme.



Photo ACDI. David Barbours, Thaïlande

En général, les revenus de tous les Thaï ont augmenté, ainsi que leur pouvoir d'achat.

Depuis quelques années, par conséquent, les revenus des Thaï appartenant à toutes les couches de la société ont augmenté à un point tel qu'ils peuvent maintenant soutenir la demande intérieure croissante pour des biens de consommation. La hausse des salaires a fait monter le niveau de l'épargne, qui a été réinjectée dans l'économie. Entre 1985 et 1988, la contribution de l'épargne intérieure au PIB s'est accrue d'un tiers.

PERSPECTIVES

Tout donne à penser que l'économie thaïlandaise poursuivra son expansion au cours des prochaines années, quoiqu'il y ait un rythme un peu moins rapide qu'en 1988. Le secteur manufacturier et celui des services en demeureront probablement les principales forces motrices jusqu'à la fin de la décennie. L'importance des effectifs ouvriers et le faible niveau des salaires contribuent à placer la Thaïlande presque en tête de liste des pays asiatiques en ce qui a trait aux coûts de la main-d'œuvre et à la productivité. Enfin, on s'attend également à ce que les produits intermédiaires, comme les dérivés pétrochimiques et le matériel électrique, génèrent eux aussi des profits supplémentaires.

La prospérité croissante des entreprises est un autre facteur qui entretient l'optimisme quant à l'avenir de la Thaïlande. Le secteur privé demeure indéniablement le principal stimulant de l'économie en servant de tremplin à l'industrie et aux exportations. Et maintenant, le pays voit s'offrir à lui une occasion unique de continuer à diversifier sa production. Le premier ministre Chatchai s'est engagé à «transformer en marché les champs de bataille de l'Indochine» et tout incite les hommes d'affaires thaïlandais à le dominer. Tout d'abord, un accord signé avec le Laos pour mettre un terme aux conflits frontaliers a libéré le commerce bilatéral florissant. Et des transactions portant sur les importations de laine sont actuellement en suspens, dans le cadre de négociations commerciales amorcées avec le Myanmar. En fait, la Thaïlande espère tirer profit de l'expansion économique de la région, sti-

De tous les pays de l'ANASE, c'est la Thaïlande qui tient la vedette. Et les Thaï ont de bonnes raisons d'être fiers de leur réussite. Il y a une quinzaine d'années à peine, tout donnait à penser que leur pays serait le prochain domino à basculer dans le camp de l'Indochine communiste. Mais loin de se laisser happer, la Thaïlande a carrément opté pour le capitalisme et est devenue l'une des nations les plus florissantes de l'Asie. Son essor économique, soutenu par ses exportations et par les capitaux étrangers, lui a valu le titre envié de l'Asie du Sud-Est et la Thaïlande est la cheville ouvrière de l'ANASE.

Nouveau tigre de l'Asie.
L'ANASE est la cheville ouvrière de l'Asie du Sud-Est et la Thaïlande est la cheville ouvrière de l'ANASE.

— Victor Funnell, *New Perspectives in Southeast Asia*, Asian Affairs, vol. XIX, tome II, p. 137.
Parce que son contexte est propice aux investissements, la Thaïlande est considérée comme l'une des nations les prometteuses à cet égard et elle peut maintenant récolter ce qu'elle a semé. Car jamais elle n'aurait connu une telle croissance si elle n'avait pas préparé le terrain en prévision de la phase subéquente de son démarrage économique. C'est un pays politique-ment stable, son économie est diver-

de 73 p. 100, tandis que les bagages en cuir et en vinyle progressaient respectivement de 208 et de 173 p. 100. On prévoyait que, pour 1989 et 1990, la hausse des produits exportés par la Thaïlande se situerait autour de 25 p. 100.

Si les ventes à l'étranger ont atteint des sommets, le marché intérieur est lui aussi en pleine expansion, par suite de la hausse des salaires et des revenus. À cause, essentiellement, de l'impulsion du secteur privé, la formation brute de capital intérieur de- vrait croître annuellement de 15 p. 100, au cours des prochaines années. Le secteur public devrait continuer sur sa lancée et on prévoit même que le budget gouverne-

Par suite de la dévaluation du baht en 1984 et de la baisse imprévue du dollar américain depuis octobre 1985, la Thaïlande est devenue encore plus compétitive et les bénéfices ne se sont pas fait attendre. Les exportations de produits manufacturés — aussi bien traditionnels que nouveaux, comme les semiconducteurs et autres dispositifs électroniques — ont progressé en moyenne de 40 p. 100 en 1986 et en 1987. Leur analyse révèle que la Thaïlande est en train de consolider sa situation dans des secteurs qui étaient jusque-là des chasses gardées des NPI. Toujours au chapitre des exportations, le vêtement et la chaussure ont augmenté chacun, en 1987,

La Thaïlande, nouvelle terre d'avenir

L'ESSOR ÉCONOMIQUE

Même si elle a connu des hauts et des bas assez prononcés, l'économie thaïlandaise s'est pas-

sifiée et les fabricants peuvent compter sur une main-d'œuvre relativement peu coûteuse. Les tensions raciales sont inexistantes et la consommation intérieure est forte.

sablement bien comportée au cours des 12 dernières années. De 1978 à 1987, le PIB a progressé en moyenne à un taux légèrement supérieur à 6 p. 100. Pendant cette même période, l'économie a subi des transformations structurelles qui se sont succédées à un rythme accéléré et ont abouti au renforcement du secteur manufacturier. Depuis quelques années, elle connaît un rendement surprenant, avec un PIB qui a atteint 8,4 p. 100 en 1987 et 11 p. 100 en 1988.

Outre les investissements de plus

à 37 p. 100 du total des capitaux étrangers placés en Thaïlande. Pour leur part, les sociétés européennes envisagent d'investir dans 54 projets et les États-Unis sont déjà partie prenante pour 46 autres. Outre le Japon, l'augmentation la plus notable est venue des placements effectués par Taiwan et les autres NPI. La hausse des coûts de construction et de la perte récente des privilèges accordés aux NPI en vertu du Système généralisé des préférences ont incité, l'année dernière, les sociétés taiwanaises, entre autres, à investir dans quelque 145 projets, soit davantage que les autres pays.

mental sera légèrement excédentaire. La Thaïlande est devenue un véritable paradis pour les investisseurs, et plus particulièrement pour les fabricants japonais, à en juger par la hausse de leurs investissements, qui est l'une des plus prononcées. Nissan, Toyota, Isuzu et Mitsubishi ont mis sur pied des coentreprises assurant la construction et l'exportation de camions et d'automobiles. Le renforcement du yen a eu pour effet, par exemple, d'amener les entreprises à fabriquer elles-mêmes les pièces qu'elles importaient jusque-là du Japon. Durant le premier semestre de 1988, 132 projets communs avec le Japon ont été autorisés, ce qui équivalait



Photo ACDI: David Barbour, Thaïlande

est le plus long. Homme ques thai, celui dont le règne iyadej, de tous les monar-

La Thaïlande est en train de devenir rapidement une puissance régionale en Asie du Sud-Est. Elle doit sa réussite d'abord et avant tout à la stabilité de ses antécédents politiques, qui rassure les investisseurs et les grands négociants. Cette stabilité est incarnée par la monarchie qui représente un agent de cohésion d'une force considérable au sein de la société thai. Le roi, qui est le chef de l'Etat, détient l'autorité législative par le biais de l'Assemblée nationale, le pouvoir exécutif par celui du Conseil des ministres et la suprême juridiction par l'entremise des tribunaux.

Sa Majesté Bhumibol Adulayadej, son gouvernement élitant son gouvernement ces de la démocratie en renoué avec l'une des fa- Par ailleurs, la Thaïlande a la voie à suivre.

d'une grande valeur, il a traversé la prospérité sans relâche pour assurer le bien-être et la prospérité de son peuple, n'hésitant pas à parcourir le pays pour voir ou développer l'irrigation et implanter d'autres projets similaires. Il tire son autorité du respect que lui manifeste la population. Et l'affection engendre la générosité. Le peuple thai vit un véritable roman d'amour avec son roi. Pour l'homme de la rue, le monarque est, de façon concrète et positive, le symbole de l'unité nationale et celui qui montre la voie à suivre.

Les causes de la prospérité thai

Il n'hésite pas non plus à prendre des décisions lourdes de conséquences, comme lorsqu'il a interdit l'exploitation forestière dans tout le pays, à la suite de graves inondations, attribuées au débordement intensif, qui avaient ravagé le Sud. Mais il a fait plus encore en décidant d'établir des relations commerciales avec les Etats communistes de l'Indochine. La conviction que Bangkok peut devenir la plaque tournante du marché de l'Asie du Sud-Est sous-tend toutes ses actions et, sous sa gouverne, la Thaïlande commence à jouer un rôle déterminant, tant politique qu'économique, dans les affaires de la région.

que. La contribution de cet Etat à l'aide au développement est de loin la plus importante dans cette partie du monde. Mais, ce qui compte encore plus, c'est le fait que les coentreprises japonaises établies dans les pays de l'ANASE sont en train de se multiplier plus vite que partout ailleurs. En 1988, les investissements japonais étaient évalués à 3,7 milliards de \$, une hausse de 62 p. 100 comparativement à l'année précédente. En Indonésie,

Les pays de l'ANASE croient fermement aux vertus de l'entreprise privée.

En 1986 et 1988, les investissements ment investi dans les pays de l'ANASE. Par ailleurs, les NPI ont énormément posent de les imiter.

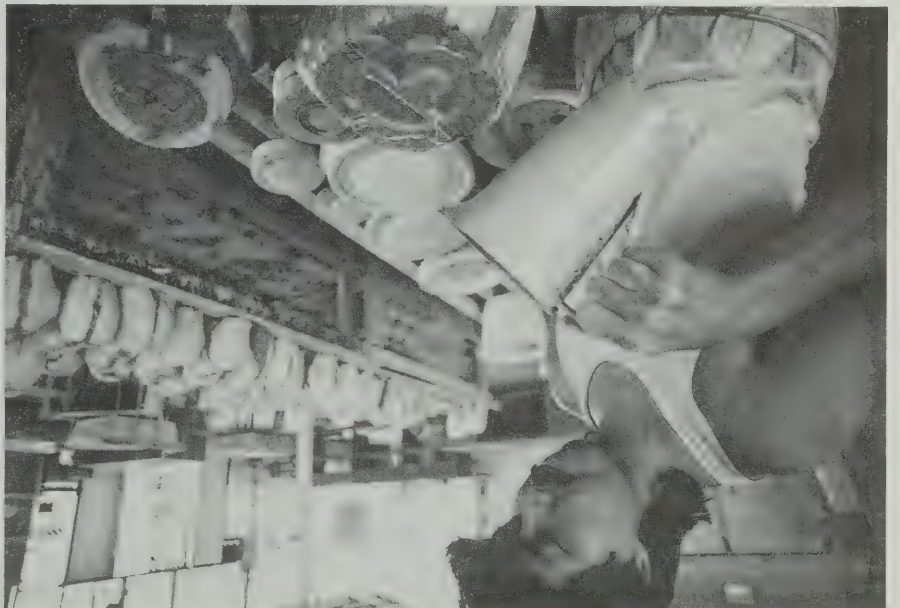


Photo AGDI: Virginia Boyd

L'Asie du Sud-Est poursuit sa progression économique plus rapide- ment que toute autre région, avançant sur d'autres groupes en développement, comme les pays d'Amérique latine. Sa dette extérieure, par exemple, est beaucoup plus faible et elle dispose d'une main-d'œuvre qualifiée nettement plus nombreuse. En outre, les économies de la région sont davantage diversifiées. Mais son atout le plus important demeure sans contredit l'augmentation des investissements effectués par le Japon et les NPI, surtout si les gouvernements de l'ANASE continuent de libéraliser l'économie pour attirer les capitaux.

Ces dernières années, la Corée du Sud et Taïwan ont mis sur pied plus de 230 coentreprises en Indonésie seulement, tandis qu'une demi-douzaine de sociétés coréennes se proposaient d'y investir des sommes de l'ordre d'un million de dollars. Les hommes d'affaires de Taïwan ne cessent d'injecter des capitaux dans l'économie des Philippines, et les industries manufacturières de Singapour sont en train de déménager en Malaisie celles de leurs activités qui nécessitent une main-d'œuvre considérable.

Tout en suivant le même rythme que les NPI, les pays de l'ANASE ont peu à peu remodelé leur dévelop-

pement en misant sur l'exportation, afin d'attirer au maximum les investissements étrangers. Cette stratégie s'est surtout avérée rentable lorsque les devises fortes ont obligé les entreprises japonaises et européennes à démentager vers des pays à bas salaires celles de leurs activités qui exigeaient une main-d'œuvre abondante et même celles qui relevaient de la haute technique. La baisse du coût d'importation des composantes électroniques en provenance de l'Asie du Sud-Est, engendrée par la force du yen, a accéléré l'émergence des fournisseurs locaux. Simultanément, les fabricants japonais ont commencé à envahir le marché des produits haut de gamme et d'une valeur ajoutée supérieure, comme les robots, les semi-conducteurs et les équipements de biotechnique; ce faisant, ils ont laissé le champ libre au secteur privé florissant des pays de l'ANASE. Du coup, la région tout entière s'est industrialisée beaucoup plus rapidement et a exporté davantage de produits manufacturés que ce qu'on aurait pu imaginer quelques années plus tôt. Avec un taux de croissance qui augmente annuellement de 30 à 50 p. 100, le secteur de l'exportation a donné le coup d'envoi de cette nouvelle prospérité.

À l'instar des Quatre tigres, les pays de l'ANASE se sont appuyés principalement sur l'épargne intérieure, très forte, pour financer leur développement. Ils croient fermement dans les vertus du capitalisme, des forces du marché et de l'esprit d'entreprise. Leur récente croissance témoigne de façon frappante du dynamisme du marché, cause première de leur relèvement. Depuis peu, leurs gouvernements ont également appris d'autres leçons: par exemple, qu'il faut comprimer le secteur public afin de réduire le déficit et limiter (à défaut de les éliminer complètement) les formalités bureaucratiques qui, auparavant, bloquaient les initiatives du secteur privé.

Au bout du compte, ces pays ont su tirer parti, non seulement de la prospérité croissante de la région, mais aussi de l'émergence du Japon comme premier partenaire économique-

5. Indice de la qualité de vie dans les pays de l'ANASE

	1960	1970	1980
Malaisie	47	66	72
Philippines	60	71	73
Thaïlande	58	68	76
Indonésie	—	48	55

Source: Donald Crone, "ASEAN's Third Decade", *Contemporary Southeast Asia*.

6. La croissance de l'ANASE

Croissance du PIB (%)	1965-73	1973-80	1980-87	1987	1988
Malaisie	6,9	7,5	4,4	5,2	7,5
Thaïlande	7,6	7,5	5,6	8,4	11,0
Indonésie	8,2	7,2	3,6	3,4	4,7
Philippines	5,4	6,3	- 0,5	4,9	6,7

Source: World Bank, "Trends in Developing Economies 1989".

Photo ACD: David Barbour, Philippines



L'ASIE DU SUD-EST: DES ÉCONOMIES EN TRANSITION

L'Asie du Sud-Est coïncide entre deux géants, l'Inde et la Chine.

LES CARACTÉRISTIQUES COMMUNES

L'autre au niveau socio-économique qu'ils exigent des analyses séparées.

Les pays de l'ANASE partagent des caractéristiques communes, comme la diversification économique, l'adoption de stratégies axées sur l'exportation et un fort niveau d'investissements étrangers et d'épargne.

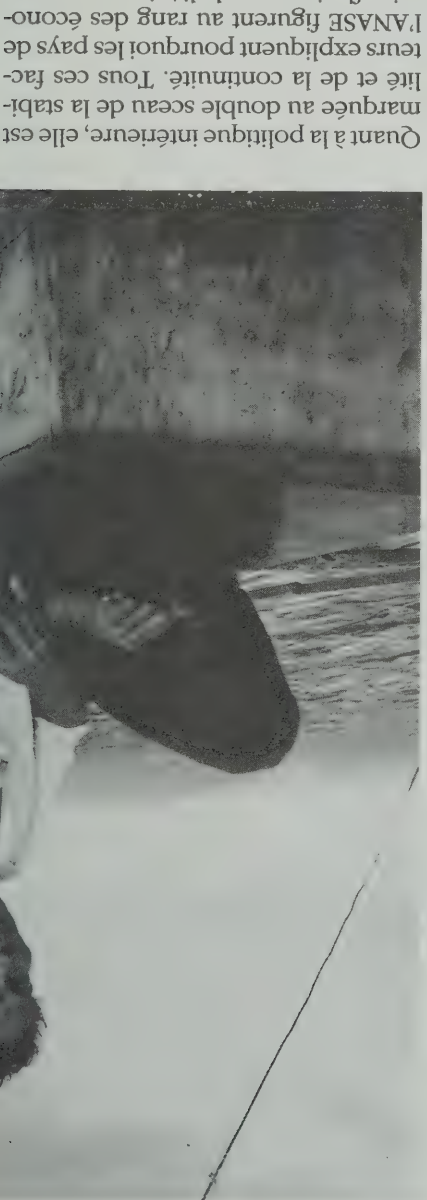
À un point de vue géographique, elle se situe à la lisière du plateau continental et regroupe les îles et archipels éparpillés au sud et à l'est dans le Pacifique. Mais, politiquement et économiquement, sa situation est tout autre et obéit à des divisions idéologiques conflictuelles. Le premier groupe se compose des pays membres de l'ANASE, soit Singapour, la Malaisie, la Thaïlande, Brunel, l'Indonésie et les Philippines. Le second réunit les États communistes de l'Indochine, à savoir le Myanmar, le Laos, le Cambodge et le Viet Nam. Les deux groupes diffèrent tellement l'un de

L'Association des nations de l'Asie du Sud-Est

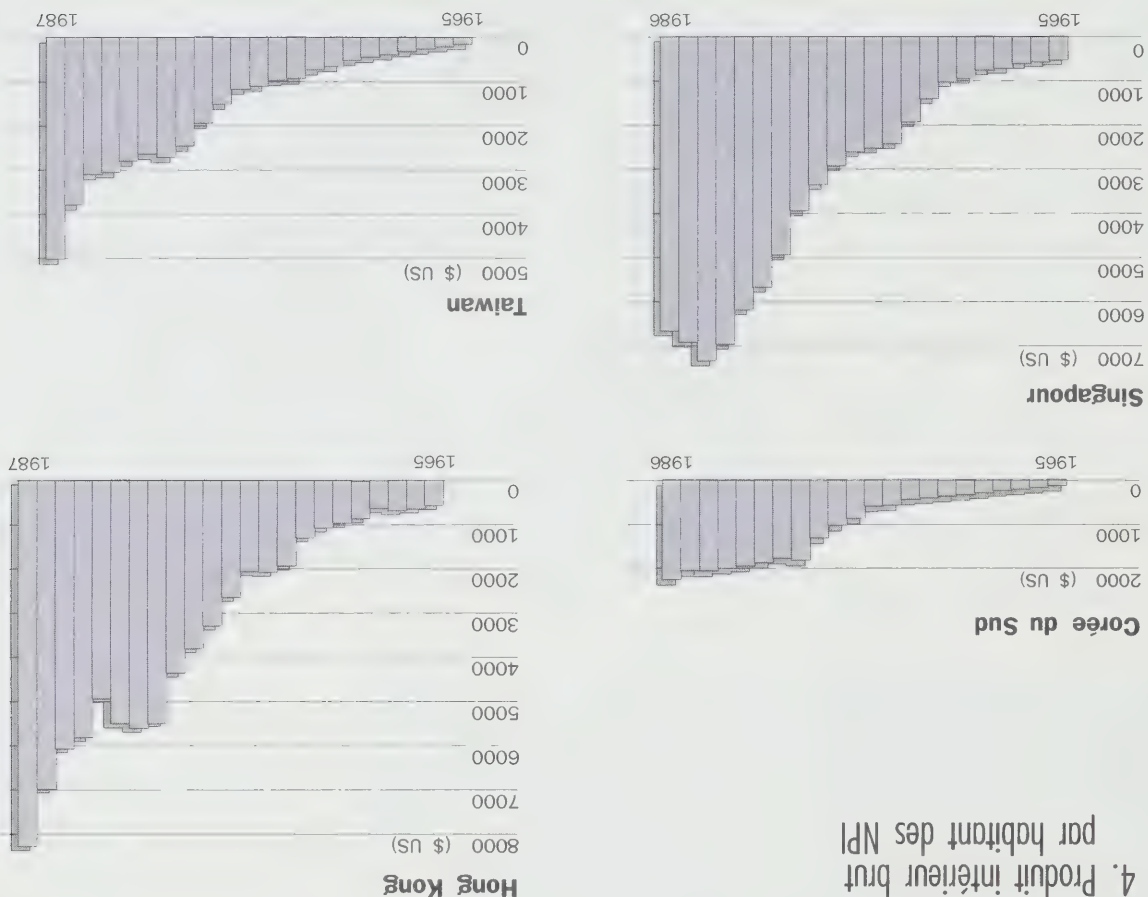
entre 6 et 8 p. 100. Les conditions de vie de ce niveau d'alphabétisation même que l'infrastructure ont été considérablement améliorées, tandis que l'éducation, au niveau tant de l'accès généralisé que du nombre d'établissements, a connu un essor remarquable. Bon nombre des activités et programmes de l'ANASE ont contribué au mieux-être des populations de la région et des efforts notables ont permis de soulager quelque peu la pauvreté et la faim. Ces progrès se reflètent dans les chiffres de l'indice de la qualité de vie (tableau 5) qui attestent une espérance de vie plus longue, un taux de mortalité infantile de sa population plus grand, une baisse de sa population la prochaine décennie, son rythme au cours de sa croissance qui maintiendra la croissance qui a été garantie d'une croissance dynamique et le potentiel de l'Asie du Sud-Est. Les efforts notables ont permis de soulager quelque peu la pauvreté et la faim. Ces progrès se reflètent dans les chiffres de l'indice de la qualité de vie (tableau 5) qui attestent une espérance de vie plus longue, un taux de mortalité infantile de sa population plus grand, une baisse de sa population la prochaine décennie, son rythme au cours de sa croissance qui maintiendra la croissance qui a été garantie d'une croissance dynamique et le potentiel de l'Asie du Sud-Est.

À peine plus de 20 ans après la création de l'ANASE, la région englobée par l'organisation est devenue un modèle pour les pays du tiers monde. Cette réussite doit beaucoup à l'association, mise sur pied dans le but d'accélérer, par un plus grand coopération, la croissance économique, le progrès de l'ANASE ont contribué au mieux-être des populations de la région et des efforts notables ont permis de soulager quelque peu la pauvreté et la faim. Ces progrès se reflètent dans les chiffres de l'indice de la qualité de vie (tableau 5) qui attestent une espérance de vie plus longue, un taux de mortalité infantile de sa population plus grand, une baisse de sa population la prochaine décennie, son rythme au cours de sa croissance qui maintiendra la croissance qui a été garantie d'une croissance dynamique et le potentiel de l'Asie du Sud-Est.

À la baisse et un niveau d'alphabétisation même que l'infrastructure ont été considérablement améliorées, tandis que l'éducation, au niveau tant de l'accès généralisé que du nombre d'établissements, a connu un essor remarquable. Bon nombre des activités et programmes de l'ANASE ont contribué au mieux-être des populations de la région et des efforts notables ont permis de soulager quelque peu la pauvreté et la faim. Ces progrès se reflètent dans les chiffres de l'indice de la qualité de vie (tableau 5) qui attestent une espérance de vie plus longue, un taux de mortalité infantile de sa population plus grand, une baisse de sa population la prochaine décennie, son rythme au cours de sa croissance qui maintiendra la croissance qui a été garantie d'une croissance dynamique et le potentiel de l'Asie du Sud-Est.



4. Produit intérieur brut par habitant des NPI



Source: David Housego, "New World in the Making," Financial Times Report, 30 juin 1988.

Le fait que la région Asie-Pacifique commence à acquérir une identité propre justifie cet optimisme mitigé. Les pays qui en sont membres ont intensifié leurs échanges commerciaux et investissent les uns chez les autres d'avantage qu'il y a quelques années. Il est fort probable que ce mouvement se maintiendra. La révolution du yen a élargi l'accès du marché japonais aux produits asiatiques et entraîné en Asie de l'Est une augmentation des investissements japonais, qui se sont élevés à 6 milliards de \$ en 1988 seulement. Par ailleurs, les NPI ont eux aussi beaucoup investi dans les autres pays de l'ANASE. Avec les nouveaux marchés et les occasions d'affaires qui se multiplient, il est fort probable que l'Asie de l'Est pourra maintenir son rythme de croissance, le plus rapide du monde.

On s'attend à ce que la conjoncture économique demeure favorable au cours des années 90, même si certaines difficultés risquent de persister quelque temps, telle la lutte contre l'inflation. Les marchés ouverts revêtent une importance vitale pour l'économie de ces pays. La Corée du Sud et Taiwan ont des excédents considérables avec les Etats-Unis et sont particulièrement vulnérables à toute réaction protectionniste. En général, les NPI ont su faire preuve de souplesse face aux fluctuations du marché, ce qui permet d'envisager l'avenir avec optimisme. De l'avis des experts, ces économies devaient néanmoins pouvoir conserver un taux de croissance appréciable. En outre, l'abolition des mesures protectionnistes pourrait leur permettre de jouer un rôle encore plus grand sur la scène internationale.

un niveau d'épargne élevé et une longueur d'avance dans les techniques de fabrication. La montée du yen n'est pas étrangère non plus à cette fulgurante ascension. Le renforcement du yen a donné lieu à un redéploiement des ressources japonaises et à des changements importants au niveau des stratégies commerciales: occasion inespérée pour les NPI. C'est l'histoire classique de celui qui se trouve au bon endroit, au bon moment, avec les bonnes politiques et, pourrait-on ajouter, les bonnes personnes. Le faible taux de leurs devises a rendu leurs exportations plus concurrentielles sur les marchés étrangers, y compris celui du Japon qui constitue aujourd'hui leur principal débouché, avant les Etats-Unis. Les Quatre Tigres sont les premiers pays en développement à avoir exploité à 100 p. 100 les mer-

LES QUATRE TIGRES

imiter son exemple. Il est certain que, comme modèle, le Japon est chargé de promesses, mais le miracle pourrait-il se répéter? Certains sont convaincus que l'unicité du Japon rend impossible toute répétition de sa réussite; d'autres croient que ce que le Japon a fait, d'autres peuples de la «ceinture de feu» — les Coréens, les Chinois, les Thaï — peuvent le faire également. Et la performance des NPI (Hong Kong, Singapour, Taïwan et la Corée du Sud) justifie à coup sûr pareil optimisme.

NPI participent de la prospérité naissante qui touche l'ensemble de la région Asie-Pacifique. Ce qui les distingue de leurs voisins, toutefois, c'est le fait qu'aucun autre groupe de pays n'a connu de tels progrès. Avec leur productivité élevée, le faible coût de leur main-d'œuvre et leurs importants excédents commerciaux, ils semblent marcher sur les traces du Japon. Pour arriver à décrire le rendement phénoménal de leurs économies, il a fallu inventer de nouveaux termes: on les appelle les Quatre dragons, les Quatre tigres, les Nouveaux Japonais ou encore l'avant-garde de l'Asie de l'Est.

Pour bien éva-

luer les progrès ac-

complis par ces

pays, il importe de

rappeler quel était

leur contexte, il y a

environ 35 ans. Oc-

cupée par les Japo-

nais jusqu'à la fin

de la Seconde

Guerre mondiale,

Taïwan avait en-

suite été envahie

par les armées en déroute de Chiang Kai-shek, le chef du Parti nationaliste chinois. Après 35 ans d'occupation japonaise et une guerre civile qui dura près de 10 ans, la Corée du Sud se retrouva en 1953 avec la plupart de ses villes ravagées et ses industries anéanties. Au début des années 50, les réfugiés fuyant la Chine communiste envahirent Hong Kong. Simultanément, Singapour était aux prises avec

Depuis quatre ans, la croissance économique des NPI a été encore plus spectaculaire et l'augmentation réelle de leurs PNB est la plus forte du monde.

une insurrection communiste qui faisait tâche d'huile dans la péninsule de Malaisie, en même temps que les tensions raciales s'accroissaient entre Chinois et Malais.

Du milieu des années 50 au milieu de la décennie suivante, les NPI procédèrent à d'importants changements dans le but de reconstruire leur économie. Ce faisant, ils accueillirent volontiers les investissements étrangers et entreprirent de développer leurs ressources humaines, stratégie qui s'avéra on ne peut plus rentable. De 1965 à 1973, le taux de croissance annuel du PNB des NPI s'éleva en moyenne à 10 p. 100 ou même plus. Puis, du milieu des années 70 au milieu des années 80, il se maintint à 7,7 p. 100, malgré deux récessions. Durant tout ce temps, il fut supérieur à celui du Japon et dépassait du double celui des autres pays industrialisés.

Depuis quatre ans, la croissance économique des NPI a été encore plus spectaculaire et l'augmentation réelle de leurs PNB est la plus forte du monde. Taïwan connaît un taux de croissance moyen de plus de 10 p. 100, Hong Kong a atteint

13,5 p. 100, tandis que la Corée du Sud se maintient aux environs de 11 p. 100. Une telle efficacité économique est sans précédent. Aucun autre groupe de pays, développés ou non, n'a pu l'égalier ni même s'en approcher. Les NPI connaissent un taux de croissance tel que même un ralentissement se traduirait malgré tout par une expansion de 4 à 5 p. 100.

De telles performances se sont traduites par une accumulation gigantesque de réserves. En 1988, la Corée du Sud, Taïwan et Hong Kong avaient ensemble, au niveau de leurs comptes des opérations courantes, un surplus de près de 30 milliards de \$, soit presque l'équivalent du surplus de toute la Communauté économique européenne, cette année-là. Les réserves de Taïwan en devises étrangères se maintiennent à 72 milliards, soit plus que l'Italie, la France et les Pays-Bas réunis. Plus modestes, celles de Singapour, évaluées à 16 milliards de \$, n'en sont pas moins objet de convoitise pour plus d'un pays industrialisé. Avec, en 1988, un PNB par habitant de 3 600 \$US, la Corée, la plus pauvre des quatre, a dépassé l'Argentine, le Brésil et le Portugal. Hong Kong, la plus riche du groupe, a presque rattrapé l'Espagne et l'Irlande.

Il faut rattacher l'incroyable essor des dernières années à plusieurs facteurs: une excellente gestion de l'économie, la proximité de puissants partenaires (les États-Unis et le Japon),



liards de \$, soit le plus gros montant jamais détenu par un pays. Cela lui a permis d'investir outre-mer presque trois fois plus en 1987 qu'en 1985 et sept fois plus qu'en 1980. Un grand nombre de sociétés japonaises sont maintenant installées à l'étranger. Par crainte du protectionnisme et d'une dépendance excessive à l'endroit d'un marché unique, tout autant que de la hausse des salaires, elles ont commencé à démenager leur production. De 1970 à 1980, les investissements japonais à l'étranger oscillaient entre 3 et 5 milliards \$ US. Entre 1980 et 1985, ils ont grimpé à 12,2 milliards \$ US par année, montant qui a presque doublé en 1986 pour atteindre 22,4 milliards \$ US. Et, en 1987, ils ont franchi le cap des 34 milliards \$ US. De nos jours, les sociétés japonaises placent annuellement davantage de capitaux à l'étranger que les entreprises de n'importe quel autre pays. Ces investissements, effectués par des compagnies de toutes dimensions, sont concentrés en Amérique du Nord, en Europe et surtout en Asie. En 1987, les capitaux japonais investis dans la région Asie-Pacifique équivalaient à plus du double des placements effectués en 1986. En 1989, la Thaïlande a vu au moins une société japonaise par jour venir implanter de nouvelles usines sur son territoire.

LE NOUVEAU RÔLE INTERNATIONAL DU JAPON

Il y a un quart de siècle, le Japon venait immédiatement après l'Inde comme pays emprunteur auprès de la Banque mondiale. Aujourd'hui, il est l'un de ses principaux donateurs et sa cotisation comme membre des Nations Unies équivaut à près de 11 p. 100 du budget annuel de l'organisme, la deuxième en importance après celle des États-Unis. Si l'on s'exprime en \$, il est maintenant le principal soutien financier du tiers monde. Lors du sommet de Toronto en 1988, le premier ministre de l'époque, M. Takeshita, avait annoncé un programme d'aide de 50 milliards de \$, ce qui faisait de Tokyo le donateur le plus généreux.

Alors que, dans la plupart des pays industrialisés, les programmes d'aide

publique au développement (APD) stagnent ou diminuent carrément, le Japon a doublé le sien lors des deux périodes quinquennales qui ont suivi 1976, et il a annoncé son intention de répéter ce geste en 1992. Néanmoins, compte tenu de sa capacité économique, les augmentations successives de son APD deviennent moins impressionnantes. Celle de 1986 équivalait à 0,29 p. 100 de son PNB, ce qui le plaçait au quatorzième rang des pays industrialisés.

Depuis le début des années 80, l'élite politique et économique a compris que, eu égard à son statut de super-puissance économique, le Japon se devait d'assumer davantage ses responsabilités au plan international. En fait, c'est tout le pays qui s'est engagé dans un débat sur les mérites de l'internationalisation. Sous l'effet de ce nouvel élan, l'aide au développement en est arrivée à jouer un double rôle :

Le Japon est en voie de devenir le chef de file en matière de technique des semi-conducteurs.



Photo First Light: Ken Love, Japon

UN EXEMPLE STIMULANT

d'une part, encourager la stabilité politique et économique des pays voisins de l'Asie de l'Est et du Sud-Est, principaux fournisseurs de matières premières et principales cibles des investisseurs, d'autre part, rembourser la dette historique contractée envers les pays occupés par le Japon pendant la Seconde Guerre mondiale. Jusqu'à maintenant, l'APD japonais est, pour près des deux tiers, concentrée en Asie. Le Japon est le premier donateur bilatéral de 18 États asiatiques, dont la Chine, qui a droit à la part du lion.

a modernisation réussie du Japon ne peut qu'encourager ceux qui espèrent voir d'autres pays d'Asie

Dans toute évidence, l'avènement du Japon s'annonce radieux. L'économie s'est très bien comportée en 1988: la demande intérieure a augmenté à un taux annuel de plus de 8 p. 100, le chômage a chuté, les prix sont restés stables et les exportations en valeur réelle nette ont diminué. Le PNB réel a augmenté de 6,1 p. 100 et devait progresser de 4,5 p. 100 en 1989, puis fléchir légèrement en 1990. L'excédent commercial devrait rester le même, aux environs de 100 milliards de \$ par année. Voilà un ensemble de facteurs qui permettra au Japon d'occuper la position enviable d'économie la plus prospère au cours des années 90. D'ailleurs, celui-ci a déjà entrepris de donner corps à ces prédictions en réorientant, une fois de plus, son économie, mais en accordant désormais la priorité au renforcement et à l'expansion de la demande intérieure. Cela revient à dire qu'il comptera moins sur ses exportations et davantage sur ses propres consommateurs pour soutenir son économie. Afin de préserver son avance tech-

L'ÉCONOMIE JAPONAISE: UNE ÉCONOMIE VOUEE AU SUCCÈS

et suivre les fluctuations de l'économie constituent maintenant des éléments-clés de notre stratégie. Nous avons lancé un nouveau modèle le 27 février 1988 et, d'ici trois ans, nous en aurons réduit le coût de fabrication de 30 p. 100.

— M. Genichi Nagakawa, directeur général de Mazda.

Cette prédominance est à l'origine des surplus commerciaux du Japon qui ne cessent d'obséder les dirigeants politiques du pays. D'une année à l'autre, ces surplus engendrent des frictions croissantes au chapitre du commerce avec les États-Unis, l'Europe et l'Asie du Sud-Est. Les milieux industriels et politiques japonais admettent aisément qu'ils ne pourront maintenir très longtemps d'importants surplus commerciaux. Et ce, d'autant moins que leurs partenaires commerciaux à l'étranger ne tolèrent plus d'avoir à subir des déficits croissants dans le cadre de leurs relations bilatérales normales avec le Japon.

nologique, le Japon a énormément investi dans la recherche et la mise au point de nouveaux concepts et produits; ainsi, entre 1976 et 1985, ses budgets intérieurs de recherche et développement ont triplé et ses entreprises préparent déjà l'avvenir. D'ici la fin du siècle, le Japon sera un chef de file mondial en matière de technique de traitement. Entre-temps, il se propose d'investir quelque 80 mil-

liards \$ US dans le domaine spatial. Il collabore avec les États-Unis à la conception d'un superchasseur FSX et envisage de lancer un avion capable de dépasser cinq fois la vitesse du son et qui reliait Tokyo et Londres en à peine trois heures. Enfin, il est en train de mettre au point un ordinateur de la cinquième génération.

Le total des actifs nets que possède le Japon à l'étranger dépasse 250 mil-

Les exportations japonaises se sont accompagnées d'une montée en flèche du marché intérieur. D'après un récent sondage financier, les 10 plus grandes banques du monde appartiennent à des intérêts japonais. En 1988, le PNB par habitant s'est établi à 21 020 \$ US et le Japon a alors dépassé les États-Unis pour la première fois. Cette nouvelle prospérité tient au fait que les gains augmentent en moyenne d'au moins 4 p. 100 par année, depuis les trois dernières décennies. Et si l'on en croit le *Forbes Magazine*, six des 10 hommes les plus riches

du monde sont Japonais. Quoi qu'en dise *Forbes* et pour le plus grand crédit du Japon, la répartition des richesses y est la plus équitable de toute la planète. Il y a un nombre étonnamment restreint de personnes très riches ou très pauvres dans le Japon contemporain. Si l'on demande à des Japonais à quelle couche de la société ils appartiennent, ils neufs sur 10 répondront: «la classe moyenne». C'est qu'à leurs yeux, l'appartenance à la classe moyenne est synonyme à la fois de travailleur et de consommateur.

Les Japonais sont de

grands épargnants. Le gros du surplus commercial du pays est alimenté par l'épargne intérieure. Les citoyens qui aiment placer leurs économies chez eux contribuent dans une proportion de 60 p. 100 à la prospérité nationale. La hausse soudaine des prix fonciers a rendu un grand nombre de Japonais virtuellement très riches. Une récente enquête a révélé que, dans un rayon de 40 km autour du centre de Tokyo, 1,3 million de ménages détenaient des actifs nets d'au moins 100 millions de yen. Ce qui pourrait faire d'eux des millionnaires instantanés.

Les Japonais sont riches et ne cessent de s'enrichir



En 40 ans, le Japon est devenu une superpuissance économique et il investit ses capitaux judicieusement.

un tournant dans l'histoire économique du pays. Alors qu'avant le milieu des années 70, les exportations ne jouaient qu'un rôle mineur dans son évolution, elles l'ont, dès ce moment, propulsé à un niveau de prospérité sans précédent. Forcé de restructurer sa production par suite du marasme qui frappait ses marchés intérieurs, le secteur privé s'est tourné vers les marchés extérieurs où il a effectué une première percée soigneusement calculée. Dès lors, il a rapidement augmenté le taux de ses exportations, soutenu par une diversité de facteurs, tels ses méthodes de gestion et ses progrès techniques axés sur la conception de nouveaux produits et la réduction des coûts de fabrication pour les autres.

Ce sont ces changements qui expliquent la croissance vertigineuse du surplus commercial du Japon, surplus qui est passé d'environ 3 milliards de \$ annuellement à la fin des années 60 à plus de 100 milliards en 1986. Pour mieux juger de l'ampleur de ce phénomène, mentionnons que, lorsque le premier ministre Nakasone était au pouvoir, le Japon a vu le surplus de son compte des opérations courantes passer de 8 milliards par an à 8 milliards par mois.

Depuis 1986, le Japon vit l'une des restructurations les plus rapides et les plus réussies jamais imposées à une économie dominante. L'accord du Plaza signé en septembre 1985 a abouti à une réévaluation du yen de 50 p. 100 par rapport au \$ US. Alors que cet accord visait à freiner la compétitivité du Japon, il a eu au contraire pour effet de stimuler ses exportations. Les experts ont multiplié les applications pour justifier ce phénomène. Selon certains, les marchés étrangers n'ont pas réagi à temps à la hausse du coût des produits japonais. D'autres ont soutenu que l'augmentation des exportations était liée à la valeur accrue, en \$, des biens exportés outre-mer par le Japon, ainsi qu'à l'acquisition de capitaux par les sociétés japonaises avec l'implantation de nouvelles usines à l'étranger. En dépit du bien-fondé de ces arguments, ce renversement de situation semble plutôt dû aux transformations radicales entreprises par les sociétés japonaises. Encouragées par le nouveau poids du yen, celles-ci se sont empressées de renforcer leur situation aussi bien au niveau intérieur que sur les

marchés étrangers, en investissant fortement dans de nouveaux secteurs, en mettant au point de nouveaux mécanismes de recherche, de production et de commercialisation, et en réduisant les coûts.

«Notre défi consiste à élaborer des méthodes de fabrication qui nous amèneront à l'aube du prochain siècle. Même si nous commençons tout juste à résoudre cette question, la plupart des entreprises américaines et européennes n'ont pas encore amorcé leurs recherches.»

La guerre des puces

De tous les affrontements commerciaux survenus entre le Japon et les États-Unis, rares sont ceux qui ont provoqué autant de frictions que le conflit qui a éclaté dans l'industrie des semi-conducteurs et qu'on a appelée «la guerre des puces». Comme elles sont indispensables aux industries de haute technologie, les puces électroniques sont devenues un produit de base dans le commerce mondial. Un simple coup d'oeil sur les statistiques suffit pour saisir toute la portée des frictions. Il y a une dizaine d'années, les entreprises américaines assuraient 80 p. 100 de la production mondiale des puces d'ordinateur. Puis, au fil des ans, les sociétés japonaises ont réussi à leur damer le pion pour finalement s'emparer de leur part du marché. Devant cette situation qualifiée de dumping par les Américains, qui y voyaient une menace pour la survie de leurs entreprises et, soutenues par la violation par Tokyo d'un accord commercial, l'ex-président Reagan a imposé, en mars 1987, des mesures puni-

— *Junichiro Nakane, professeur, Institut d'ingénierie des systèmes, Université Waseda.*

Quoi qu'il en soit, s'il fallait ne retenir qu'un seul motif pour expliquer le succès économique du Japon, ce serait sans aucun doute la flexibilité. Les sociétés japonaises sont en effet passées maîtres dans l'art de s'adapter aux exigences et aux besoins toujours renouvelés des consommateurs — un fait sans précédent dans l'histoire des entreprises modernes.

«Être à l'écoute des consommateurs

Afin de tenir la tête dans le domaine technologique, le Japon engage d'énormes capitaux dans la recherche et le développement de nouvelles idées et de nouveaux produits.



Photo First Light: Ken Stratton

Le flottement du \$ US en 1971 et la première crise du pétrole, survenue deux ans plus tard, ont quelque peu ralenti le taux de croissance du Japon, mais seulement de façon temporaire. Néanmoins, ce contretemps a marqué

L'ÉMERGENCE DU JAPON SUR
LA SCÈNE INTERNATIONALE

perficie totale de l'archipel. Le Japon possède très peu de gisements métallifères et n'a pratiquement pas de pétrole. Cela ne l'a pourtant pas empêché de devenir une superpuissance économique grâce, surtout, à son capital humain. Il a, en effet, su compenser son manque de ressources naturelles en se dotant d'une main-d'œuvre dont on ne cesse de vanter l'excellence. L'éducation y jouit d'un tel prestige que l'analphabétisme n'est pratiquement inexistant et qu'elle joue un rôle catalyseur au sein de la jeunesse japonaise.

Deux autres particularités méritent aussi d'être soulignées. Du point de vue culturel, le Japon est le seul pays non européen à avoir atteint un niveau de développement post-industriel. De plus, contrairement à la plupart de ses voisins, il n'a jamais été colonisé, même si son ascension s'appuie sur un mélange unique de traits orientaux et occidentaux.

kilomètres en dessinant un arc. Cet archipel fait partie d'un ensemble volcanique auquel on a donné le nom de «cinture de feu du Pacifique», ce qui explique la fréquence des séismes qui le secouent périodiquement.

Le Japon, pays à nul autre pareil

soi et de la primauté de la nation sur l'individu. En fait, pour la société tout entière, il n'y a pas de devoir plus sacré que de servir la nation. Pour les travailleurs japonais, devenir toujours plus efficaces, toujours plus productifs, participer aux compétitifs, l'éthique professionnelle et cadre bien avec le consensus social.

Un autre facteur inhérent caractérise le développement du Japon: c'est ce mélange de grandes sociétés et de petites entreprises. Avec des noms mondialement connus comme

De nombreux facteurs sous-tendent l'émigration, amorcée il y a une trentaine d'années, du Japon comme l'une des principales nations industrielles. Tout d'abord, sa population est non seulement homogène, mais elle possède en plus un un très fort sens de son identité et de son unité culturelles. Les Japonais sont unis par un réseau d'obligations multiples et très fortes. Ils sont étroitement liés les uns aux autres, ils ont élevé au rang de vertus les principes du travail acharné, de la loyauté, du sacrifice de

0 u'il s'agisse de son histoire, de sa religion ou de sa culture, le Japon ne ressemble à aucun autre pays. Même sa géographie est foncièrement différente de celle de la plupart des nations européennes industrialisées. Le Japon se compose de quatre grandes îles et d'un chapelet de plus de 3 000 îlots qui s'étirent du nord-est vers le sud-ouest sur quelque 2 250

LA SPÉCIFICITÉ DU JAPON



Photo First Light: Jim Brandenburg, Japon

Le Japon traditionnel.

LES ÉCONOMIES DE L'ASIE DE L'EST

De toutes les régions du
continent asiatique,
aucune n'a connu un
développement économique
aussi spectaculaire que
celui de l'Asie de l'Est.

Depuis 20 ans, en effet, cette sous-région a maintenu un taux de croissance qui est le plus rapide de toute la planète, surtout à cause des économies dynamiques du Japon, de Taïwan, de la Corée du Sud, de Hong Kong et de la République populaire de Chine. D'ici à la fin du siècle, l'en-semble du PNB des économies de l'Asie de l'Est aura dépassé celui de l'Europe occidentale et égalera celui de l'Amérique du Nord. Pour bien comprendre toute l'ampleur de cette remontée impressionnante, il convient de rappeler qu'il y a une trentaine d'années à peine, les PNB de l'Europe et de l'Amérique du Nord correspondaient respectivement au triple et au double de celui de l'Asie de l'Est. Aujourd'hui, non seulement cette région affiche des taux de croissance sans précédent, mais ses perspectives pour les prochaines décennies sont également des plus prometteuses. Au XXI^e siècle, deux des quatre puissances mondiales qui domineront la scène internationale seront situées en Asie de l'Est: ce sont la Chine et le Japon.

Le présent chapitre traite du Japon et de son émergence à titre de super-

puissance économique. On y brosse aussi un rapide tableau des nouveaux pays industriels (NPI) de l'Asie de l'Est.

LE JAPON: SUPERPUISSANCE

Si l'est, en Asie, un pays qui symbolise les aspirations de tout un continent, c'est bien le Japon. Au cours des 40 dernières années, ce pays a deviné vaste par la guerre a réussi à devenir une superpuissance économique. Sa défaite à la fin de la Seconde Guerre mondiale l'a poussé à entreprendre des changements drastiques dans les domaines politique et économique, et des les années 60, il avait atteint un taux de croissance annuel d'au moins 10 p. 100. Au cours des années 70, il est apparu comme la troisième puissance économique mondiale, après les États-Unis et l'URSS. Dans les années 80, il a acquis définitivement le statut de superpuissance économique. Le Japon jouit d'un des PNB les plus élevés qui soient, et son énorme surplus commercial en fait le premier créancier du monde. Son taux de chômage, qui se maintient autour de 2,6 p. 100, demeure depuis 20 ans le plus bas des cinq grandes économies de l'OCDE. Le Japon est également le plus stable avec un taux d'inflation de seulement 1,6 p. 100. Enfin, comme les taux d'intérêt ne dépassent pas 3,5



Photo First Light. Ken Straton, Tokyo, Japon

p. 100, la demande intérieure est très forte et les perspectives sont donc particulièrement prometteuses. Et grâce à son statut et à son influence, il ne fait aucun doute qu'il demeurera la première puissance du continent asiatique. À une époque où les pays les plus développés voient ralentir leur croissance et où les experts commencent à parler du déclin des États-Unis, l'économie du Japon poursuit incontestablement sa remarquable ascension.

«Le principal événement de cette seconde moitié du siècle est l'accession du Japon au statut de superpuissance.»

— Clyde Prestwick, ancien sous-secrétaire adjoint au Commerce, sous l'administration Reagan.

Le Japon est devenu le plus riche de tous les pays; avec des actifs de plus de 40 milliards \$ US, il a surpassé les États-Unis en 1987. Principal bailleur de fonds de la planète, son compte des opérations courantes s'élevait à plus de 900 millions de \$ en 1988. Aujourd'hui, il sort d'avantage d'argent du Japon qu'il n'en sortait du Moyen-Orient au plus fort du boom pétrolier. Et les experts prédisent que, d'ici à la fin du siècle, le montant net des portefeuilles d'investissements détenus par les Japonais à l'étranger atteindra plus de 1 000 milliards \$ US et que le yen pourrait fort bien avoir succédé au dollar comme devise internationale.

que Sud. Le premier s'étend le long de la côte est du continent. Il réunit Hong Kong, les Corées du Nord et du Sud, Macao, la Mongolie ainsi que la Chine et le Japon, qui en sont les chefs de file. Le deuxième groupe se compose de Brunel, du Myanmar, de la Thaïlande, de la Malaisie, de Singapour, des Philippines, de l'Indochine (Viet Nam, Laos, Cambodge) et de l'archipel d'Indonésie. Le troisième groupe s'articule autour du sous-continent indien avec l'Afghanistan, le Pakistan, l'Inde, le Bangladesh, le Bhoutan, le Népal, les Maldives et Sri Lanka. Le quatrième bloc est constitué des États insulaires du Pacifique Sud (Mélanésie, Micronésie et Polynésie). Les chapitres suivants examineront certaines des tendances économiques majeures qui sont en train d'émerger au sein des grandes formations régionales de l'Asie.

Récolte de poissons aux Philippines.



Photo ACDI: Pat Morrow, Chine

3. Indice de la qualité de vie dans certains pays

Espérance de vie 1989
Taux de mortalité infantile 1989
Taux d'alphabétisation (%) 1985

Hong Kong	77	7	88
Singapour	74	8	86
Sri Lanka	71	27	87
Chine	70	31	68
Corée du Sud	70	24	95
Malaisie	70	23	74
Thaïlande	66	27	91
Philippines	64	44	88
Indonésie	61	73	72
Inde	59	96	44
Pakistan	57	106	31
Bangladesh	51	116	32
Bhoutan	49	125	32
Myanmar	61	67	78
Laos	49	106	84
Viet Nam	62	61	84
Papouasie Nouv.-Guinée	55	57	45
Fidji	64	26	86
Kiribati	54	62	96
Vanuatu	63	56	53

Sources: Rapport mondial sur le développement humain 1990, PNUD. La situation des enfants dans le monde 1991, UNICEF.

2. Les différences régionales, la population et le PNB par habitant

Pays	Population 1988 (millions)	PNB par habitant (1988) (dollars US)	Croissance annuelle moyenne du PNB par habitant (%) 1965-88
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Sri Lanka	16,6	420 \$	3,0
Pakistan	106,3	350 \$	2,5
Inde	815,6	340 \$	1,8
Afghanistan	15,7	280 \$...
Népal	18,0	180 \$	1,9
Bhoutan	1,4	180 \$	...
Bangladesh	109,0	170 \$	0,4
Maldives	0,2	410 \$	2,3

Asie du Sud-Est	2,6	9 070 \$	7,2
Singapour	2,6	9 070 \$	7,2
Malaisie	17,0	1 940 \$	4,0
Thaïlande	54,5	1 000 \$	4,0
Philippines	59,9	630 \$	1,6
Indonésie	174,8	440 \$	4,3
Laos	3,9	180 \$	...
Viet Nam	64,2	240 \$	...
Cambodge	7,7	130 \$	...
Myanmar	40,0	200 \$	2,3

Asie de l'Est	122,6	21 020 \$	4,3
Japon	122,6	21 020 \$	4,3
Hong Kong	5,7	9 220 \$	6,3
Corée du Nord	21,9	970 \$	...
Corée du Sud	42,0	3 600 \$	6,8
Rep. pop. de	...	...	...
Chine	1 088,4	330 \$	5,4
Mongolie	2,1	...	...

Pacifique Sud	0,73	1 520 \$	1,9
Fidji	0,73	1 520 \$	1,9
Vanuatu	0,15	840 \$	...
Tonga	0,10	830 \$	...
Papouasie-	...	...	...
Nouv.-Guinée	3,70	810 \$	0,5
Samoa occidentales	1,6	640 \$	...
Salomon	0,30	630 \$	...
Kiribati	0,07	650 \$	...

Sources: Rapport sur le développement dans le monde 1990, Banque mondiale.

IL Y A NON PAS UNE, MAIS BIEN QUATRE ASIES

Compte tenu de la diversité de l'Asie, il est de plus en plus difficile, pour ne pas dire impossible, de percevoir le continent comme une entité distincte. D'une part, l'homogénéité ethnique, religieuse, linguistique et culturelle qu'on retrouve dans d'autres

continents et sous-continent n'existe pas en Asie. D'autre part, les différences sous-régionales, au niveau du développement économique, sont si marquées que la moindre tentative de généralisation serait totalement dénuée de sens. Pousées par la nécessité, les pays asiatiques se sont regroupés en quatre grands blocs: l'Extrême-Orient, l'Asie du Sud-Est, l'Asie du Sud et le Pacifi-

Un phénomène encore plus marquant est la nouvelle détente qui commence à rapprocher peu à peu des ennemis de longue date. La Corée du Sud courtise la Chine et l'Union soviétique. Taïwan s'efforce d'établir des relations concrètes avec la Chine, sa rivale de toujours. Certains indices permettent même de croire que le Viet Nam souhaite réintégrer le giron de la communauté internationale. «Le resserriment des relations entre la Chine et le monde non communiste, dans la région Asie-Pacifique, a contribué à réduire les tensions internationales.»

— Koichi Kato, membre de la Chambre des représentants, Diète japonaise.

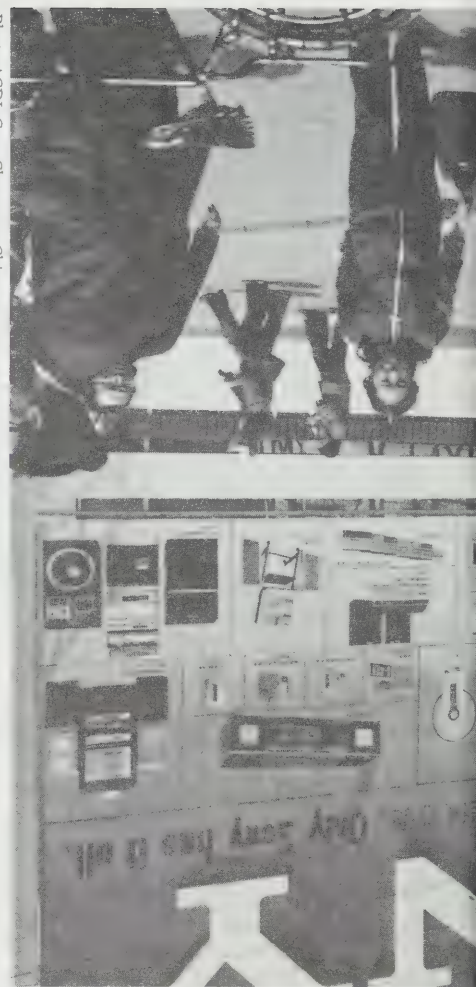


Photo AGDI: Gary Chapman, Chine

L'ASIE, TERRE DE CONTRASTES

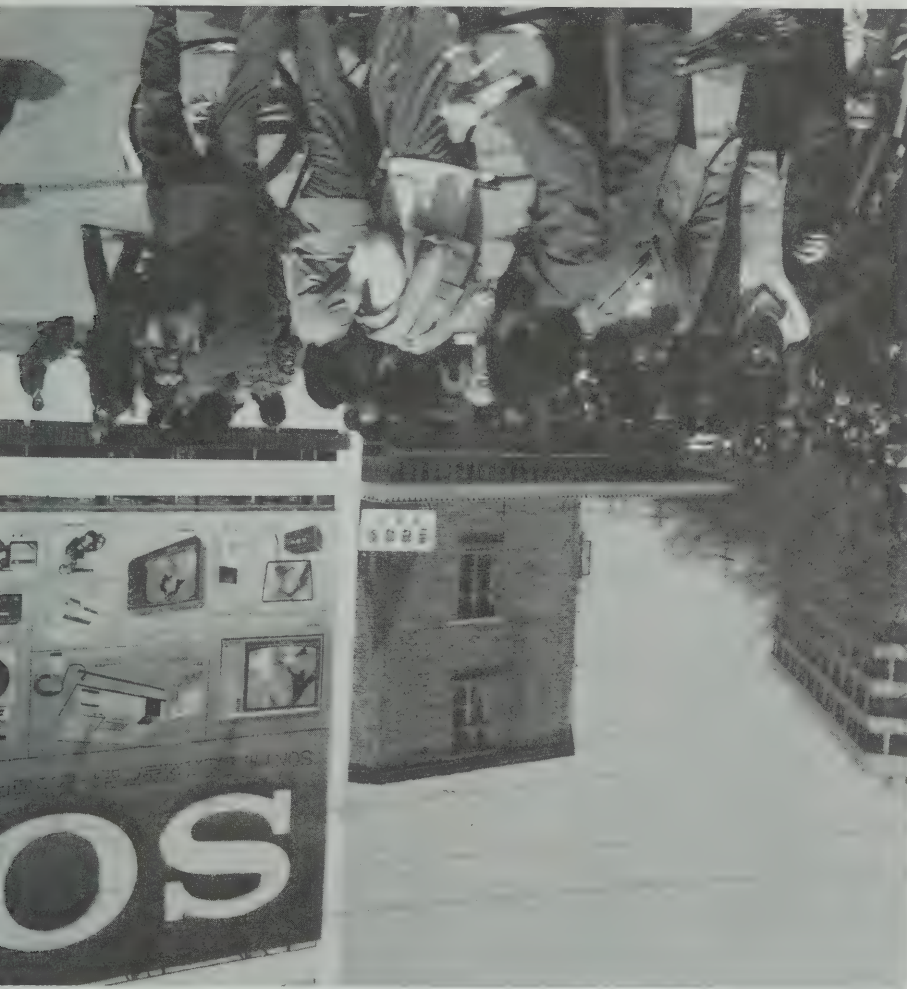
L'Asie est un continent d'une telle diversité, une terre marquée par tant de contrastes et d'extrêmes, que, en plus des différences culturelles, religieuses, ethniques et linguistiques, les pays s'y distinguent également par leur superficie, leurs populations, leurs institutions politiques, leur niveau de développement économique et leurs tendances démographiques.

l'Inde, l'Indonésie et le Japon se retrouvent à une extrémité de l'échelle, tandis qu'à l'autre, on trouve, par exemple, Brunei, Singapour, Hong Kong, le Cambodge et les États insulaires du Pacifique. Les niveaux de développement et l'éventail des revenus présentent des écarts tout aussi extrêmes. D'un côté, se dresse ce pays dont la réussite industrielle n'a pas d'égale: le Japon. Régions nouvellement industrialisées, Hong Kong, Singapour, Taïwan et la République de Corée sont parvenus à un stade de développement et à un niveau de revenu intermédiaire, suivis de près par les pays de l'ANASE et plus particulièrement la Thaïlande et la Malaisie. Enfin, les pays de l'Asie du Sud et les États socialistes de l'Asie du Sud-Est se retrouvent complètement à part, avec des revenus très faibles et des structures économiques qui comptent parmi les moins développées du monde. En 1988, le PNB par habitant était, en devise américaine, de 170 \$ au Bangladesh, de 440 \$ en Indonésie, de 9 220 \$ à Hong Kong et de 21 020 \$ au Japon.

Les courbes démographiques sont en étroite relation avec les indicateurs économiques. C'est dans les pays les plus pauvres que le taux de croissance démographique est le plus élevé; en revanche, dans les nations les plus industrialisées, la natalité a diminué plus rapidement que prévu. Le Japon a déjà atteint le niveau de remplacement et le vieillissement de sa population est le plus élevé.

Les économies mixtes et fortement centralisées. Néanmoins, les régimes capitalistes ont connu un succès tel que certains États communistes ont opté pour la

économies mixtes et fortement centralisées. Néanmoins, les régimes capitalistes ont connu un succès tel que certains États communistes ont opté pour la



Les économies de type capitaliste ont connu tellement de succès que certains États communistes ont opté pour la

1. Principaux groupes linguistiques de l'Asie et nombre de locuteurs

Langues Régions Locuteurs et familles de langues (en millions)

Famille indo-européenne		
Hindi	Inde	300
Bengali	Bangladesh, Inde	160
Mahrati	Inde	70
Punjabi	Inde, Pakistan	75
Gujarati	Inde	35
Ourdu	Pakistan occidental	70

Famille sino-tibétaine		
Chinois	Chine, Taiwan	750
(mandarin)		
Cantonais	Chine du Sud, Taiwan	70
Wu	Chine du Sud	55
Min	Chine du Sud, Taiwan	48
Hakka	Chine du Sud	32
Vietnamien	Viet Nam	60
Thaï	Thaïlande	52

Famille dravienne

Telugu	Péninsule indienne	64
Tamoul	Sri Lanka, pén. indienne	52
Kannara	Péninsule indienne	31
Malayalam	Péninsule indienne	26

Famille nippo-coreenne

Japonais	Japon	120
Coréen	Corées du Nord et du Sud	62

Famille austronésienne

Bahasa	Indonésie	162
Javanais	Indonésie	55

Source: *World Regional Geography*, Hudman, John Wiley & Sons, New York, *Issues for Today*, R.H. Jackson et L.E. 1986, p. 309.

des collectivités qui jouissent d'un poids politique non négligeable. Cette situation se répète dans toute l'Asie, comme on peut le constater à la lecture du tableau 1.



Photo ACDI: Roger Lemoyne, Bangladesh

L'anglais, langue véhiculaire de l'Asie

La situation linguistique est tout aussi problématique que la configuration ethnique de la région. Rares sont les pays où tout le monde parle la même langue. Avant l'accession de l'Inde à l'indépendance, le gouvernement britannique y avait recensé 179 langues officielles et 514 dialectes. Même dans l'Inde contemporaine, plus de 20 langues sont parlées par

péninsule indienne. La Chine et la Mongolie, berceau de la race mongoloïde, ont contribué au peuplement de la Corée, du Japon et de la majeure partie de l'Asie du Sud-Est, à l'exception de la Malaisie péninsulaire. L'ethnie malaise est concentrée dans la péninsule et dans les îles de l'Asie du Sud-Est, sauf au Japon et en Nouvelle-Guinée.

Les vestiges du colonialisme et la complexité linguistique ont favorisé plus utilisée des langues non asiatiques. Elle s'avère donc, à ce titre, un outil essentiel pour le monde des affaires, le gouvernement, les tribunaux, l'éducation et le tourisme. Elle jouit d'un tel prestige qu'on l'associe à la mobilité sociale et à la réussite économique. Dans certains pays d'Asie, les habitants font tout ce qu'ils peuvent pour apprendre l'anglais. Dans d'autres, comme

LES POPULATIONS DE L'ASIE

L'Asie est le continent le plus peuplé. On estime que trois milliards d'individus — soit plus de la moitié de l'humanité — vivent dans cette partie du monde, alors qu'ils n'étaient que 1,4 milliard en 1950.

Selon les pronostics, la population de l'Asie oscillera autour de quatre milliards d'ici à 10 ans et elle atteindra 4,5 milliards d'individus en 2025. L'Asie de l'Est compte déjà environ 1,3 milliard d'habitants, dont 1,1 milliard pour la seule Chine. La population de l'Asie du Sud dépasse le milliard, près de 430 millions de personnes sont réparties en Asie du Sud-Est et plus de cinq millions dans les archipels du Pacifique Sud.



Photo ACIDI: David Barbour, Chine

La Chine compte le quart de la population mondiale, mais au cours des 10 dernières années, elle a réduit de moitié son taux de croissance démographique.

Il va sans dire que les tendances démographiques ne sont pas uniformes. Les taux de croissance des populations sont tributaires des réalités subtropicales et c'est en Asie de l'Est que la diminution est la plus prononcée. La Chine, par exemple, qui rassemble le quart de la population mondiale, a radicalement réduit sa croissance démographique de moitié au cours de la dernière décennie. La République de Corée, Taïwan et Hong Kong ont également vu leurs

efforts en ce sens couronnés de succès. Le Japon a déjà atteint le niveau de remplacement. Qui plus est, après avoir touché un sommet de 2,2 p. 100 durant les années 70, le taux de croissance démographique de l'Asie de l'Est s'est maintenant stabilisé à 1,2 p. 100 et on s'attend à ce qu'il soit inférieur à 1 p. 100 d'ici à l'an 2000. En Asie du Sud et en Asie du Sud-Est, le ralentissement de la croissance démographique s'est effectué de façon moins abrupte, à l'exception notable de l'Indonésie, de la Thaïlande et de Sri Lanka. Ces populations augmentent à un rythme de 2,2 p. 100, mais on estime que, vers l'an 2000, ce taux aura été ramené à 1,5 p. 100. En chiffres absolus, le total de 1,4 milliard d'habitants atteint en 1980 sera, selon toute prévision, de 2,8 milliards en 2025.

On peut, grosso modo, répartir la population de l'Asie en trois grandes catégories: les groupes caucasiens du Pakistan, de l'Inde et du Bangladesh; le groupe malais de l'Asie du Sud-Est; et les groupes mongoloïdes concentrés en Chine et en Asie de l'Est. La répartition réelle des populations est aussi complexe que les caractéristiques géographiques de la région. Comme le métissage y est une réalité depuis des milliers d'années, il

Grâce à l'ANASE, plus d'enfants ont survécu et ont accès à l'école.



Photo ACIDI: David Barbour, Philippines

est difficile de procéder à des distinctions tranchées. Schématiquement, on peut dire que la race caucasienne a dominé les plaines du Gange et de l'Indus et qu'elle a eu une influence déterminante sur la partie méridionale de la

Vers l'an 2000, la population de l'Asie aura atteint les q

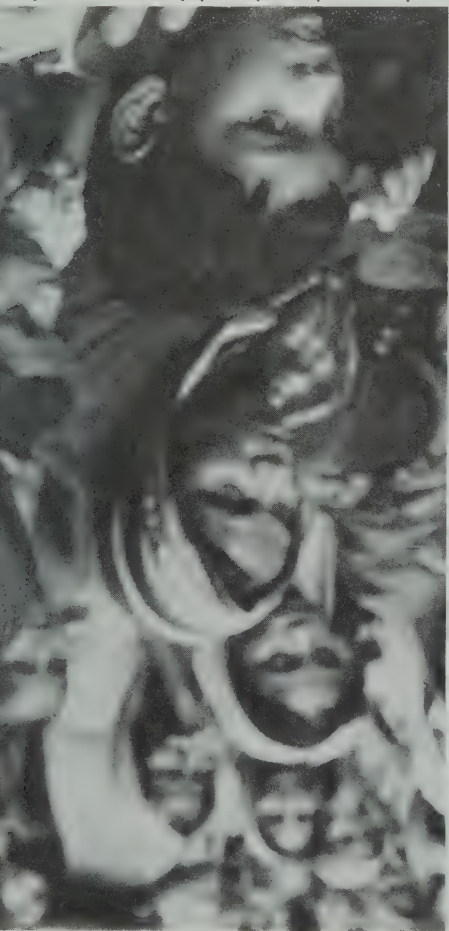


Photo ACIDI: David Barbour, Philippines

L'ASIE CONTEMPORAINE



Photo First Light Brent Bear, Japon

roniquement, l'Asie d'aujourd'hui est en passe de redevenir le moteur de l'économie mondiale qu'elle fut jadis. Le Japon est devenu une super-puissance économique et l'une des principales nations industrielles. La Chine commence, depuis une dizaine d'années, à tenir un rôle de premier plan sur la scène internationale, tandis que l'Inde cherche à son tour à s'imposer comme une superpuissance. Les nouveaux pays industriels sont en train d'ouvrir la voie au reste du tiers monde, tandis que certains États de l'Asie du Sud-Est (la Thaïlande et la Malaisie) connaissent une croissance économique vertigineuse. Un profond sentiment de confiance règne sur toute la région. Les Asiatiques sont fiers de leurs réalisations. Et ce, à juste titre — s'ils ont pu progresser autant, c'est essentiellement grâce à un travail acharné, à une épargne considérable. Et cette confiance vient étayer leur prétention que le prochain siècle sera le siècle du Pacifique.

geaient une main-d'œuvre abondante. On recruta donc des millions de Chinois et d'Indiens qui vinrent travailler dans les plantations du Sud-Est asiatique, ce qui eut pour effet de modifier considérablement la répartition ethnique. Finalement, le colonialisme donna naissance à un nouveau régime commercial qui accentua encore plus la détérioration de la région. Sauf le Japon et la Thaïlande, tous les pays d'Asie devinrent des exportateurs de matières premières et des importateurs de produits finis, en totale opposition avec le régime commercial qui prévalait jusque-là et qui avait été la principale source de la légendaire richesse de l'Asie. L'apogée du régime colonial européen coïncida avec la fin du XIX^e siècle et le début du XX^e. À la fin de la Seconde Guerre mondiale, la majeure partie de l'Orient s'engagea dans la lutte pour l'indépendance. Les Philippines y accédèrent en 1945, l'Inde et le Pakistan en 1947, Sri Lanka et le Myanmar en 1948, le Cambodge en 1954 et la Malaisie en 1957, qui après le rattachement des colonies de Bornéo en 1963, prit le nom de Fédération de Malaisie.

ropéennes ont marqué presque toute l'Asie de façon indélébile, altérant à la fois le tissu social et le paysage. Elles ont transformé l'économie, aboli les structures politiques, sociales et traditionnelles et même, dans certains cas, modifié la composition ethnique des territoires occupés. Ces effets déplora-bles du colonialisme découlent en partie du partage de l'Asie qui visait essentiellement à satisfaire les ca-pices des Européens. C'est ainsi que des frontières artificielles furent imposées, frontières qui morcelèrent les communautés ethniques et culturelles. Les Européens construisirent aussi des villes pour pouvoir exploiter les ressources régionales. Mais, ce qui importe encore plus, c'est le fait que ceux-ci modifièrent les systèmes agricoles et commerciaux à leur propre avantage. La priorité accordée aux cultures commerciales destinées à l'exportation plutôt qu'aux cultures vivrières qui, traditionnellement, avaient assuré l'autosuffisance des populations, fut la cause première d'une succession de disettes et de famines. Les plantations de caféiers, d'hévéas et de théiers, imposées à plusieurs pays et exploitées à l'occidentale, exi-

L'Asie est le berceau des plus grandes religions.



Photo ACDI. Roger Lemoyne, Inde

LES SÉQUELLES DU COLONIALISME

À partir du XV^e siècle, les réalisations matérielles et spirituelles de l'Asie commencent à éveiller la convoitise des monarques européens. Ce furent justement ses richesses et sa prospérité qui attirèrent les puissances européennes, dont la présence aboutit finalement à son partage.

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Bien avant l'Occident, ses savants avaient maîtrisé les mathématiques, l'astronomie et les règles de la navigation, tandis que ses médecins appliquaient des méthodes indigènes mais précises qui subsistent encore aujourd'hui. Spécialistes de la sculpture sur bois et tailleurs de pierres accomplis, les Asiatiques ont balisé l'histoire de monuments qui continuent de soutenir l'admiration. La Grande Muraille de Chine, la «ville temple» d'Angkor Vat au Cambodge, le Bouddha d'émeraude de la Thaïlande, de même que le Grand Palais et le Taj Mahal en Inde, ne sont que quelques exemples de l'ingéniosité et de l'habileté architecturale des Asiatiques.

Trois mille ans avant notre ère, les Asiatiques connaissaient déjà l'art de la cuisson et celui de la poterie; ils savaient utiliser le feu pour fondre les métaux et avaient inventé les feux d'artifice et la poudre à canon. Ils pratiquaient l'irrigation des sols et la rotation des cultures. Ils avaient domestiqué les animaux et inventé la roue, le harnais, la selle et le chariot. Pendant des siècles, en fait, la plupart des progrès techniques accomplis par l'humanité ont puisé leur origine dans

Malaisie et l'Indonésie. L'hindouïsme, l'Afghanistan, le Pakistan et l'Inde, puis la religion s'est propagée vers l'est, gagnant le bouddhisme au culte des ancêtres. L'islam s'est propagé vers l'est, gagnant le bouddhisme au culte des ancêtres. L'islam s'est propagé vers l'est, gagnant le bouddhisme au culte des ancêtres.

Le terme Asie est un concept occidental, le ployé pour désigner les terres qui s'étendaient à l'est de leurs frontières, quelque 500 à 600 ans avant notre ère. Les Grecs et les Asiatiques s'étaient considérés comme des «Orientaux», l'Inde et d'autres contrées de l'Orient. Il restait dans ses écrits ses multiples rencontres et y décrivait les innombrables merveilles et prodiges dont il avait été témoin. Dédaignés par l'ensemble de ses contemporains, ses récits de voyage ont été, depuis, largement corroborés.

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Le XVII^e siècle, les puissances européennes rêvèrent de s'approprier le monopole du lucratif commerce des épices et des pierres précieuses. Finalement, la région tout entière tomba sous la domination des puissances coloniales, à l'exception du Japon, de la Thaïlande, de la Mongolie et des royaumes inaccessibles du Népal et du Bhoutan. Les Portugais furent les premiers Occidentaux à atteindre la région au XVI^e siècle, rapidement suivis par les Espagnols, les Hollandais et les Anglais. Au XIX^e siècle, ces derniers avaient déjà la haute main sur les Indes et sur les territoires qui s'étendaient plus à l'est, tandis que les Français avaient soumis la majeure partie de l'Indochine (le Viet Nam, le Laos et le Cambodge).

La conquête et la colonisation eu-

Orient, la mousson donne naissance à une végétation tempérée et tropicale d'une extrême variété. De part et d'autre de la zone équatoriale, on retrouve quelques-unes des forêts tropicales les plus vastes du monde (Indonésie, Malaisie, Philippines), tandis que la savane, constituée de prairies parsemées d'arbres et d'arbustes, est surtout présente en Inde et en Asie du Sud-Est.

L'Asie est la terre des grands fleuves. Les fleuves ont toujours joué un rôle prépondérant dans l'histoire de l'Asie. Même aujourd'hui, la densité démographique, le long de leurs plaines en Chine, en Indochine, en Inde et au Bangladesh, est l'une des plus élevées du monde. Les systèmes fluviaux fournissent un moyen de transport, assurent l'irrigation et, surtout, fertilisent les terres agricoles : grâce à leurs dépôts alluvionnaires : caractéristique essentielle à la survie de trois milliards d'êtres humains.

L'HÉRITAGE LÉGUÉ PAR L'ASIE

L'Asie est le berceau de quelques-unes des cultures et civilisations les plus marquantes et les plus anciennes, qui s'étendaient depuis Suméru jusqu'en Chine, en passant par la vallée de l'Indus. Son influence a même gagné le Nouveau Monde puisqu'il y a 15 000 ans, les Asiatiques traversèrent la Sibérie et franchirent le détroit de Béring, que les eaux n'avaient pas encore inondé, pour devenir ainsi les premiers Américains.

L'héritage laissé par l'Asie à l'humanité n'est pas seulement d'ordre tech-

La mousson

son, c'est un vent très humide qui se propage depuis la mer vers l'intérieur des terres. Les causes de la mousson sont très complexes ; elles sont fonction du relief terrestre et du système hydrographique tout autant que des vents et des courants dominants. Mais les origines de la mousson sont moins importantes que ses effets. En fournissant une base même de la vie, elle constitue la base même de la vie. En règle générale, la végétation est à l'image du climat. Les vastes plaines

Le terme mousson vient d'un mot arabe qui désigne la saison la plus venteuse de l'année. La meilleure façon de décrire ce phénomène consisterait à le présenter comme un renversement saisonnier de la direction des vents, qui se traduit par un vent très sec soufflant pendant toute une saison de la terre vers la mer, alors que, durant l'autre saison, c'est la mer qui souffle vers la terre.

de l'Asie septentrionale sont couvertes par la toundra et la taïga. La toundra, qu'on retrouve aussi dans le nord du Canada, est une vaste étendue de plaines glacées, où ne pousse aucun arbre et où le sol reste gelé en permanence. Dans les zones éparpillées par le pergélisol, elle recouvre la steppe de lichens, de mousses et de quelques herbacées. Au sud de la toundra, la taïga forme une ceinture de conifères et de prairies. En Extrême-

montagneux, alors que les îlots coralliens forment des atolls au relief peu élevé.

L'Asie est un territoire si vaste qu'on y retrouve tous les types de climat, depuis le climat tropical jusqu'au climat subarctique. Il s'ensuit que le schéma de répartition des pluies varie fortement. Si une bonne partie du territoire asiatique jouit d'un climat continental, la plupart des zones habitées sont sous l'effet d'un climat tropical ou subtropical, avec des précipitations très faibles en hiver. En fait, le principal dénominateur commun de régions aussi différentes que l'Asie du Sud, l'Asie du Sud-Est et le Pacifique est leur climat tropical. Aucune autre partie du monde ayant une superficie comparable n'a un climat aussi uniforme. Une caractéristique propre à ce climat est la mousson. Celle-ci détermine le cycle agricole et le mode de vie des paysans asiatiques. Dans les régions les plus peuplées, on dit qu'elle constitue la base même de la vie. En règle générale, la végétation est à l'image du climat. Les vastes plaines

Photo AGDI: David Barbour, Philippines



COMPRENDRE L'ASIE

**La région Asie-Pacifique se caractérise par son
immensité et sa diversité: qu'on pense simplement à sa
population et à sa géographie.**

L'Asie est si vaste que seuls des superlatifs permettent de la décrire. Le continent le plus étendu occupe

le tiers de la surface terrestre: sa superficie dépasse celles de l'Amérique du Nord, de l'Europe et de l'Australie réunies. On y retrouve les déserts les plus vastes, les fleuves les plus longs, les montagnes les plus hautes et les climats les plus extrêmes. Ses côtes sont baignées au nord par l'Arctique, à l'est par le Pacifique et au sud à la fois par l'océan Indien et par le Pacifique.

Au cours des pages qui suivent, le terme Asie englobe toutes les terres qui s'étendent d'ouest en est depuis l'Afghanistan jusqu'à la Papouasie-Nouvelle-Guinée. La majeure partie de cette région est soit montagneuse soit aride, et chaînes et plateaux recouvrent près des trois quarts de sa superficie totale.

Deux déserts s'étendent au cœur même du continent; le premier couvre une partie de la Chine occidentale et le second, l'extrémité est de la Sibérie, en Union soviétique. Dans ces deux régions, la densité démographique est extrêmement faible. Plus au sud, le grand désert asiatique s'étale jus-

L'Asie, l'Extrême-Orient et l'Orient

Bien que les appellations Asie, Extrême-Orient et Orient soient souvent employées indifféremment, elles comportent néanmoins des différences subtiles. D'un point de vue géographique, le terme Asie désigne la partie orientale du continent eurasiatique et les îles qui s'y rattachent. Plus simplement, il s'agit de la région qui s'étend à l'est de la Turquie, en incluant l'Union soviétique. Cette définition en fait le plus vaste de tous les continents. L'Extrême-Orient est une notion plus imprécise. Au sens strict, il s'agit de l'Asie de l'Est et de pays comme le Japon, les deux Corées, la Chine et les îles qui les longent. Mais on l'a aussi parfois étendu sans trop de rigueur au Viet Nam ou même à l'Inde, ce qui explique comment ce concept en est venu à englober tous les territoires à l'est de l'Afghanistan. L'Orient, enfin, est le nom qui vient généralement à l'esprit quand on pense à l'Asie, parce qu'on l'employait autrefois pour désigner tous les pays de ce continent, à l'exclusion de l'Union soviétique.

Le sud de la Chine fait la jonction entre l'Asie du Sud-Est et son excroissance géographique, les îles du Pacifique. Le plateau continental, qui englobe le Viet Nam, le Cambodge, le Laos, la Thaïlande, le Myanmar (Birmanie) et la péninsule de Malaisie, est dominé par une topographie complexe et accidentée. Les montagnes

sées par plusieurs régimes fluviaux. La Chine et de la Manchourie sont traversées par plusieurs régimes fluviaux. Les vallées de la région connue sous le nom d'Extrême-Orient. Plaines et montagnes alternent dans cette partie septentrionale de l'Asie de l'Est, tandis que les vallées de la Chine et de la Manchourie sont traversées par plusieurs régimes fluviaux.

Les vallées, où vit la majeure partie de la population et où les cultures poussent bien, constituent la principale caractéristique de ce territoire arrosé par le fleuve Rouge au Viet Nam, le Mékong qui traverse les plaines du Viet Nam, du Cambodge et du Laos, le Bassin de l'Irrawaddy au Myanmar et le Menam en Thaïlande. Au-delà de la plate-forme continentale se succèdent une multitude d'îles, dont les îles japonaises, l'archipel des Philippines, l'archipel indonésien et les îles de Bornéo et de la Papouasie-Nouvelle-Guinée. La composition physique de ces îles et archipels est encore plus complexe que celle du continent. Tous font partie de la «ceinture de feu» du Pacifique et sont périodiquement secoués par des tremblements de terre et des éruptions volcaniques. En Indonésie, par exemple, plus de 150 volcans sont toujours en activité, tandis que le Japon subit en moyenne quatre secousses par jour. Les îles du Pacifique sont des formations soit volcaniques, soit coralliennes. Les premières s'articulent autour d'un centre





LA PRÉSENCE DE L'ASIE AU CANADA

— *Brian Mulroney, premier ministre du Canada*

où l'on discute des possibilités de commerce et d'investissement, ainsi que des défis à relever pour conquérir les marchés de l'Asie et du Pacifique. La sixième conférence, tenue à Montréal en février 1989, a dressé un inventaire détaillé des 13 plus grands marchés de la région.

En 1983, le volume de notre commerce dans le Pacifique a surpassé celui que nous avions avec l'Europe. Cette année seulement, notre commerce avec le Japon sera à lui seul égal à celui que nous entretenons avec les quatre pays les plus importants d'Europe de l'Ouest. Nos quatre marchés les plus importants se trouvent ici. Nous nous attendons tous à ce que les exportations du Canada dans cette partie du continent augmentent encore de 50 p. 100 d'ici à l'an 2000.

D'une façon graduelle, l'Asie est devenue en quelque sorte part du Canada, et cela, dans plusieurs domaines. Une communauté de Canadiens d'origine asiatique, solidement établie et débordante de dynamisme, a clairement contribué à notre avenir en tant que nation. Ces gens de toutes conditions sociales ont travaillé durement et se sont consacrés à l'épanouissement de notre pays. Aujourd'hui, ils jouent un rôle actif dans toutes les sphères de la société: au gouvernement, dans les médias, dans la recherche, les arts, l'architecture, la technique et l'industrie. Ils sont dans les universités et dans les affaires. Chacun, à sa manière, enrichit notre pays. Cette influence va sans doute s'intensifier puisque la moitié de nos immigrants arrivent aujourd'hui de la région Asie-Pacifique.

L'Asie fait sentir sa présence encore de bien d'autres manières. Ainsi, le montant des investissements en provenance du Japon, de Hong Kong, de Taïwan et de la Corée du Sud s'accroît rapidement dans les secteurs de l'immobilier, de l'automobile, des ressources naturelles, des compagnies papetières, de l'électronique et des industries de pointe. Ils entraînent dans leur sillage la création d'emplois et l'introduction de nouvelles techniques, et annoncent d'excellentes perspectives.

Parmi les étudiants étrangers qui fréquentent nos universités, près de la moitié viennent de l'Asie du Sud et de l'Est, soit trois fois plus que des autres régions. Ils constituent près de 60 p. 100 des inscriptions internationales au baccalauréat et plus de 40 p. 100 à la maîtrise et au doctorat. Le tourisme n'échappe pas à cette influence. Au cours des cinq dernières années, le nombre de touristes japonais s'est accru de 450 p. 100. Ils font partie de la catégorie de visiteurs qui dépendent le plus. Il est fort probable que nous verrons leur nombre augmenter dans les prochaines années avec l'arrivée de touristes en provenance d'autres parties de l'Asie. Voilà pourquoi l'entrée de l'Asie sur la scène mondiale revêt une telle importance aux yeux de la majorité des Canadiens.

L'Asie du Sud-Est compte un grand nombre d'ouvriers spécialisés, facteur important de son expansion économique.

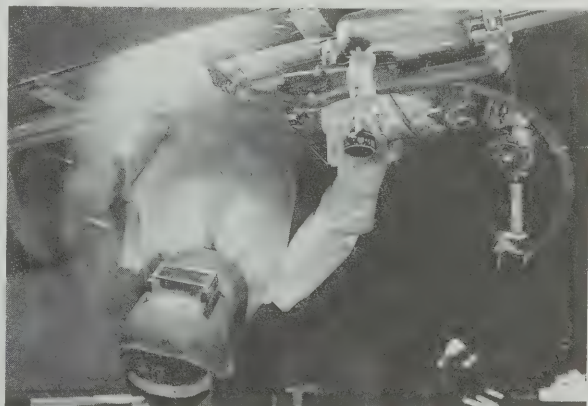


Photo AC/D: David Barbour, Thaïlande

Le commerce est la base de notre économie. Aussi le Canada entretient-il avec l'Asie plus de relations économiques que les autres pays occidentaux, à l'exception des États-Unis. Immédiatement après ces derniers, c'est avec l'Asie et la région du Pacifique que nous avons le plus d'échanges commerciaux, d'avantage même qu'avec l'Europe. Et cette tendance ne fait que se confirmer avec la conclusion de nouvelles ententes. En 1988, les exportations du Canada à destination de l'Asie et du Pacifique se sont accrues de plus de 30 p. 100. Le Japon, la République popu-

laire de Chine, la Corée du Sud, Hong Kong et Taïwan figurent aux rangs de nos principaux marchés. D'ici au début du siècle, il faut s'attendre à ce que le commerce bilatéral entre le Canada et l'Asie dépasse les 50 milliards.

Pour permettre aux gens d'affaires canadiens d'être plus compétitifs sur les marchés en pleine expansion de l'Asie, et pour attirer investissements et tourisme, le premier ministre du Canada a annoncé à Singapour, en octobre 1989, la plus récente politique visant à susciter la croissance économique soutenue et la prospérité. La *Stratégie de promotion commerciale: Horizon le monde prévoit de nouveaux échanges commerciaux*, de nouveaux investissements et de nouvelles techniques d'une valeur de 94 millions \$ destinés à aider notre pays à faire bonne figure au niveau international durant les années 90. *Stratégie Pacifique 2000*, une facette majeure du programme, est conçue pour permettre au Canada de garder sa position de partenaire privilégié dans cette région. Les montants serviront à familiariser davantage les Canadiens à la culture et aux langages étrangers, ainsi qu'à stimuler la collaboration avec le Japon sur les plans de la science et de la technique. L'accent est placé sur les transferts de techniques et les coentreprises entre sociétés canadiennes et japonaises.

Le monde des affaires, lui aussi, s'affaire à créer de nouveaux liens. Ainsi, la Chambre de commerce du Canada a élargi ses activités dans la région et la Conférence sur les débouchés dans le Pacifique, fondée il y a six ans, est devenue la principale tribune



Photo ACIDI, Ron Waits, Pakistan

La première ressource de l'Asie, c'est son capital humain. Le continent dispose d'une main-d'œuvre capable de réussir des percées spectaculaires.

L'Asie à l'aube de l'an 2000 et examine certaines des perspectives que laissent entrevoir les tendances actuelles, de même que leurs répercussions possibles. Mais en premier lieu, l'auteur de l'étude s'attarde aux liens de plus en plus étroits qui se nouent entre le Canada et l'Asie, et il s'interroge sur l'influence qu'exerce l'Asie sur notre société.

LE CANADA: UNE PRÉSENCE ACTIVE EN ASIE

L'Asie appartient tout à la fois à notre passé et à notre avenir. Notre fascination pour ce continent ne date pas d'hier. Remontons au siècle dernier. Des missionnaires canadiens pénétrèrent profondément en Chine; ils ouvrent des écoles en Corée et enseignent au Japon. Au début de ce siècle, des missions diplomatiques s'installent en Chine et au Japon. Vers la fin des années 30, le Canada a établi des missions aussi loin qu'à Kobe et à Shanghai, témoins de ses échanges avec les pays du Pacifique et précurseurs des futurs liens. L'aide canadienne au développement dans cette région débute avec le plan de Colombo: les pays développés du Commonwealth s'engagent à partager leur expérience et leurs richesses avec des nations d'Asie qui venaient d'acquiescer leur indépendance. Au cours des 30 dernières années, le Canada est venu en aide à bien des nations du continent asiatique, de la Chine à Sri Lanka, du Népal à l'Indonésie et à la Thaïlande. Cette assistance économique s'est manifestée dans des secteurs aussi variés que la gestion des ressources naturelles, la construction de routes et de barrages,

chapitre 11, enfin, présente une vue d'ensemble de prises par les pays asiatiques pour les mesures menacent l'environnement ainsi que les mesures dis que le chapitre 10 analyse les phénomènes qui tion de denrées alimentaires et à l'urbanisation, tant qu'impose la croissance démographique à la production qui restent à relever. Le chapitre 9 étudie les limites des femmes à la vie économique, ainsi que les défis maines de l'éducation, de la santé et de l'intégration examine quelques-unes des réalisations dans les do-graves menaces environnementales. Le chapitre 8 tout en affrontant la croissance démographique et de plis pour rehausser la qualité de vie des populations La deuxième partie décrit certains progrès accom-

L'accent sur les courants qui commencent à se dessiner. mances économiques les plus remarquables et mettent et le Pacifique. Les chapitres 4 à 7 traitent des perfor-régions: l'Asie de l'Est, l'Asie du Sud, l'Asie du Sud-Est de ce continent et la dynamique de ses quatre sous- phie de l'Asie. Le chapitre 3 met en relief la diversité notions générales sur la géographie et la démogra-lecteur trouvera aux deux premiers chapitres des diversité et des tendances macro-économiques. Le prend deux parties distinctes: la première traite de la-gion apparaît sur l'échiquier mondial. Le texte com-ses écueils. L'importance grandissante de cette ré-secrét de certaines réussites et expose la nature de l'émergence de cette nouvelle Asie; il dévoile le

Le présent numéro de *Développement* examine de précieuses leçons pour les pays en développement. tout en poursuivant leur essor économique, renferment accroître l'accès à l'éducation et aux services de base alimentaires, planifier la croissance démographique, d'Asie pour augmenter la production de denrées

L'ASIE: UNE CROISSANCE À NULLE AUTRE PAREILLE

Nord-Américains et Européens commencent à peine à saisir toute la portée d'un des développements les plus extraordinaires de l'après-guerre: le pouvoir économique mondial est en train de basculer vers l'Asie et les pays du Pacifique.

Il n'y a pas si longtemps, cette partie du monde était encore synonyme de malnutrition endémique, de famines dévastatrices, de populations analphabètes et de paysans indigents. Ce n'est plus le cas aujourd'hui. L'Asie a vu son niveau de vie augmenter radicalement et, même si la pauvreté et la malnutrition demeurent un défi pour les nations les plus démunies, la plupart des pays d'Asie connaissent une croissance sans précédent.

Aujourd'hui, l'Asie peut se flatter de posséder certaines des villes, des compagnies aériennes et des hôtels les plus modernes du monde. Cette métamorphose spectaculaire découle en partie de la transformation de sociétés agraires en des systèmes économiques extrêmement modernes, où le produit intérieur brut (PIB) repose essentiellement sur les secteurs manufacturier et tertiaire. Les exportations en plein essor et la consommation toujours plus forte ont contribué à hausser le niveau de vie. Qui plus est, pour accomplir un changement aussi profond, l'Asie a pu s'appuyer sur l'évolution de sa principale ressource: le capital humain. La région tout entière peut maintenant compter sur le secteur privé le plus dynamique du monde qui regroupe des ingénieurs et des techniciens de premier plan, ainsi qu'une main-d'œuvre parmi les plus qualifiées. Ses ingénieurs ont réussi des percées révolutionnaires dans la plupart des domaines relevant des sciences appliquées. C'est le facteur humain, plus que toute autre cause, qui est responsable du succès qu'a remporté l'Asie en inondant les marchés mondiaux de ses biens.

Le niveau de vie a considérablement augmenté. Dans quelques-uns des États asiatiques nouvelle-ment industrialisés, le revenu par habitant dépasse déjà celui de certains pays européens. L'année dernière, les bourses de Bombay, de Bangkok et de Hong Kong ont connu des résultats supérieurs à ceux des principaux marchés du monde industrialisé et ont, du même coup, propulsé toute la région à un niveau de prospérité incomparable. Sous bien des aspects, l'Asie est devenue la «Cendrillon» du monde en développement. Et tandis que notre société est en train de se transformer en un marché planétaire, les pays de cette région abordent rapidement le XXI^e

siècle en se livrant à une course pour la suprématie économique. En tant qu'entité économique et commerciale, l'Asie progresse plus vite que les autres régions, et sa part de l'économie mondiale devrait sérieusement s'accroître au cours des prochaines décennies. D'ores et déjà, ses surplus commerciaux sont les plus importants de la planète et, d'ici à l'an 2000, elle aura franchi le cap des quatre milliards d'habitants. Elle produira la moitié des biens et services et en consommera davantage à elle seule que le reste du monde. Son secteur industriel sera plus vaste et plus diversifié que ceux de l'Europe et de l'Amérique du Nord réunies. Les économistes estiment qu'au cours des prochaines décennies, les principaux pays de la région Asie-Pacifique connaîtront un taux de croissance économique supérieur à celui des membres de l'Organisation de coopération et de développement économiques (OCDE).

Le miracle japonais — où l'on a vu un pays dévasté par la guerre devenir en moins de 40 ans une gigantesque puissance économique — symbolise la réussite de cette région, mais il est loin de constituer un cas unique. D'autres pays ont connu une évolution semblable et ont su émerger d'une économie anéantie par la guerre, la faim et la pauvreté pour s'affirmer comme des chefs de file mondiaux au plan de la productivité. D'ici à la fin du siècle, les pays en cours d'industrialisation de l'Asie du Sud-Est jouiront d'un produit national brut (PNB) plus élevé que celui des pays européens et comparable à ceux de l'Amérique du Nord. Ce courant est d'ailleurs en train de se répandre rapidement. Pendant plusieurs années, les pays de l'ANASE¹ ont connu les plus forts taux de croissance économique régionaux du monde; ils apparaissent aujourd'hui comme des terres d'aventure. Même l'Asie du Sud connaît depuis quelques années une croissance impressionnante et progresse pratiquement trois fois plus vite que la plupart des pays industrialisés. Les efforts accomplis par certaines nations

1. L'Association des nations de l'Asie du Sud-Est composée de Brunei, de l'Indonésie, de la Malaisie, des Philippines, de Singapour et de la Thaïlande.

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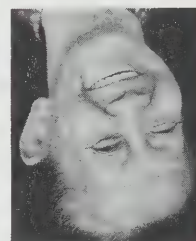
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Environment and
Development:
The Crucial Decade

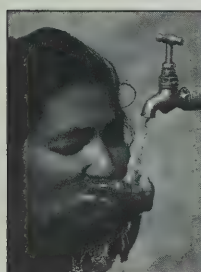
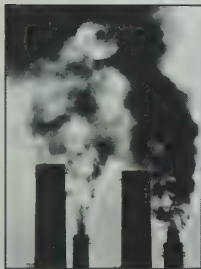
Canada



COVER PHOTO

People and Nature... most agree that this coming decade will be a crucial turning point in Earth's history. Will forests be burned to make way for more crop-production or will a balanced relationship between people and their environments endure? Options and solutions to these and other critical questions are discussed in this issue.

Environment and Development: The Crucial Decade



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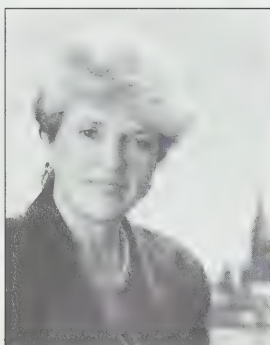


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Minister's Message



Ask Canadians what's important and the health of the environment — locally, nationally and internationally — is likely to be at the top of their list. Deforestation, global warming, holes in the ozone layer — these issues and many more have made Canadians vitally aware that, in an interdependent world, the environment affects everyone and is everybody's responsibility.

Each day, we see evidence of this growing concern in newspapers and magazines, in public debate and in the burgeoning number of organizations who devote their time and efforts to tackling environmental issues. Governments around the world have also responded to the challenge. For example, I recently issued a policy paper on environment and sustainable development that updates existing policy and better prepares CIDA for the pivotal decade ahead.

This issue of *Development* contributes to the growing dialogue. It is not intended to be an official statement of government policy, nor does it pretend to offer the final word on the many difficult challenges ahead. Rather, it is designed to stimulate debate, to suggest ideas, and to spur individuals and organizations to action. I invite you to read it, and to think about the contribution you can make, individually and collectively, to ensure that the world we leave to our children and grandchildren will be a world worth having.

A handwritten signature in cursive script that reads "Monique Landry".

Monique Landry
Minister for External Relations
and International Development

ENVIRONMENT IN THE 1990s: CRISIS OR OPPORTUNITY?

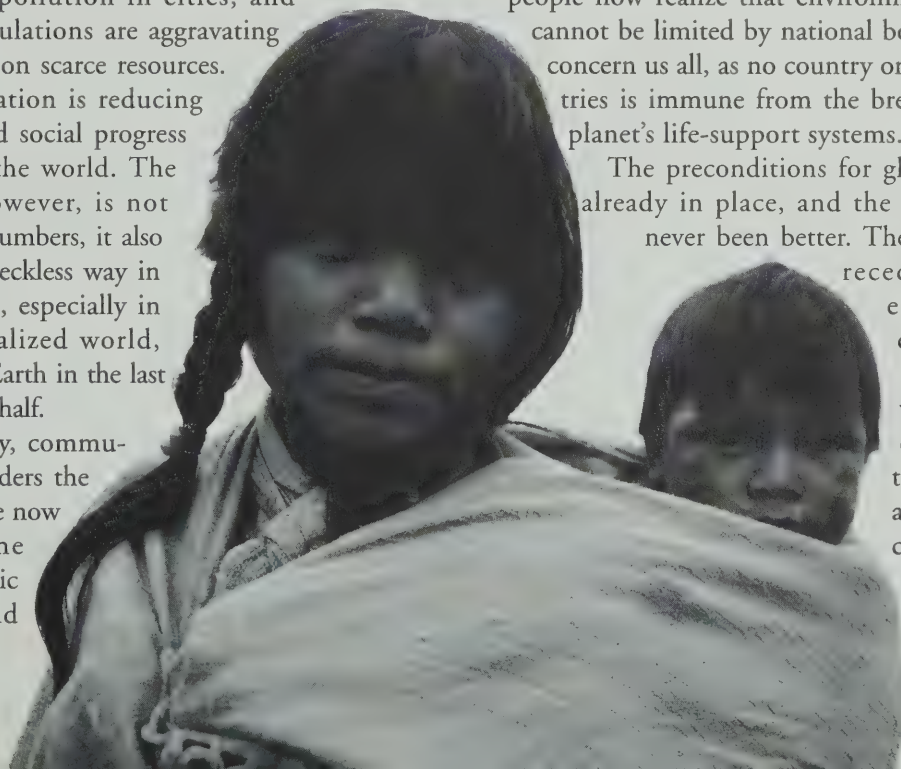
Most observers agree that the next few years will be a crucial turning point. Decisions must be made and key processes set in motion as soon as possible.

Our planet is in crisis. Climate change, ozone depletion, acid rain and toxic waste all underscore the fact that ecological problems have now reached global proportions. Less familiar, but just as dangerous, are the additional threats challenging developing countries. In most developing countries, soils are being washed away or blown away, forests are disappearing, deserts are spreading, plant and animal species are being threatened, and precious water sources are being depleted faster than they are being replenished. Fish stocks are declining, while irrigated croplands are crippled by excess salt or waterlogging. Rapid industrialization has created pollution in cities, and growing populations are aggravating the pressures on scarce resources. Such degradation is reducing economic and social progress in much of the world. The problem, however, is not only one of numbers, it also involves the reckless way in which people, especially in the industrialized world, have treated Earth in the last century and a half.

Fortunately, communities and leaders the world over are now aware of the need for drastic measures, and

significant shifts have taken place in recent years. Overall, national policies are changing, steps are being taken to address some of the critical issues, and a majority of governments and UN institutions are beginning to adopt sustainable development. Already, a number of international agreements have been formalized. In addition, significant research activities in several public policy institutes are under way, and NGOs, now by the hundreds, are alerting public opinion about local and global environmental threats. Environmentalism, as an international movement, has captured the world's imagination in a powerful way, with the result that, everywhere, more and more people now realize that environmental problems cannot be limited by national boundaries. They concern us all, as no country or group of countries is immune from the breakdown of our planet's life-support systems.

The preconditions for global action are already in place, and the prospects have never been better. The Cold War has receded, exposing environmental degradation and poverty as the world's great destabilizing threats. Science and technology can help solve these problems. Reductions in



CIDA Photo: David Barbour, Mexico

military spending can increase available resources. Public and private organizations and institutions provide the mechanisms for taking action. And these positive developments find support in what seems to be a worldwide genuine public concern for the environment.

On the other hand, this rather optimistic outlook comes also with a dire warning: action is needed now, for despite some progress, environmental degradation continues largely unabated, and is undermining the prospects for economic development as well as peace and security. Most observers agree that the next few years will be a

crucial turning point. Decisions must be made and key processes set in motion as soon as possible. If major national and

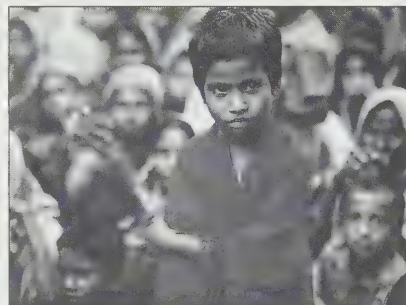
international efforts are not pursued in the coming decade, irreparable damage will be done to the world's environment.

The UN Conference on Environment and Development, hosted by Brazil, has the potential to initiate critical changes in the course of development. It calls for new global partnerships, and provides the world with a final window of opportunity before many points of ecological 'no return' are reached. Billed as the Earth Summit, this world meeting has proposed an Earth Charter and a comprehensive agenda, known as Agenda 21. Its goal is to ensure the security of the resources and life-sustaining systems of the earth, and the progress and well-being of its people in the 21st century and beyond.



CIDA Photo: David Barbour, Philippines

This issue of *Development* is intended for all those who wish to have more background information on the state of the world's environment. It reviews extensively the major threats to Earth's life-support systems



CIDA Photo: Roger Lemoyne, Bangladesh

and their impact, especially on the environment in the developing world; it investigates the forces behind these threats and

surveys various options and solutions.

Chapters One to Three examine how human



CIDA Photo: John Flanders, Nepal

activities are responsible for changing the atmosphere, polluting waters and oceans, and squandering the soil. Chapter Four focuses on some of the main factors responsible for most of the world's environmental problems: from the legacy of the industrial revolution to affluence and waste; from pop-

ulation growth and poverty to the urban explosion. Chapter Five explores the meaning of sustainable development, and proposes some elements of a strategy for a sustainable world. Chapter Six centers on the challenge of managing planet Earth, probing future trends, evaluating the costs of action and inaction, and examining what is required to put the world on a path of sustainable development.

Part 1: An Impending Global Ecological Crisis



CHANGING THE ATMOSPHERE

*Over the last century, human activities
have altered the complex mixture
of gases in the atmosphere.*

Some effects, such as smog and acid rain, have been analyzed for some time. More recent unwelcome surprises include the thinning of the ozone layer and global warming.

In 1988, over 300 scientists and policy makers from 48 countries attended the conference in Toronto on "The Changing Atmosphere." Four days of intensive deliberations led to the Conference issuing a solemn warning. "Humanity is conducting an uncontrolled, globally pervasive experiment whose ultimate consequences could be second only to a nuclear war. The best predictions available indicate potentially severe economic and social dislocation...." ⁽¹⁾ The Conference called for immediate action, including a 20 per cent worldwide reduction in the burning of fossil fuels by the turn of the century.

This chapter looks at how our activities have upset nature's balance, the consequences for the various ecosystems, and the extent to which this could trigger climatic changes as dramatic as those associated with an ice age.

URBAN POLLUTION

Air pollution has emerged as a problem only in the last three or four decades. Even then, it was assumed to be limited to urban and industrialized areas. But, in recent years, air pollution has evolved as a problem of regional and global concern, as its effects become severe

worldwide. Air pollution arises from many sources such as heating plants — both industrial and domestic — industrial processes, incinerators, automobiles and other transport vehicles. Despite remarkable progress in cleaning up some forms of air pollution, much of the world's urban population breathes air that is unhealthy, at least some of the time. Thus, the fight for cleaner air reveals mixed results: progress in some countries, setbacks in most.

Progress over the past 20 years has produced some encouraging signs. Air pollutants such as sulphur dioxide and lead, which pose severe health and environmental problems, have declined in 20 of the 33 cities which participate in the Global Environment Monitoring System (GEMS) of the UN Environment Programme. In Toronto, for instance, levels of sulphur dioxide were cut over 60 per cent between 1976 and 1985.

Improvement in some countries has been nothing short of impressive. In the last fifteen years, Sweden and Germany have succeeded in reducing their sulphur dioxide emissions by over two-thirds. Switzerland and Austria have gone further, adopting the world's toughest regulations. But overall, progress has been limited to the rich industrialized countries that could afford tough regulations and investments in air pollution control equipment.

For the rest of the world, urban pollution continues unabated in most countries, including those of Eastern Europe. Pollution levels in the latter are danger-

ACID RAIN

Polluted air endangers other living species too, in the form of acid compounds that fall from the sky. Basically, rain mixes in the air with gases and particles from burning fossil fuels and brings down, through a complex chemical process, dilute sulphuric and nitric acid which alters the whole ecosystem, from the most simple to the most complex life forms. Acid rain is not a new phenomenon. The term was first used by an English chemist more than a century ago to describe the pollution over Manchester. What is new is the magnitude of the predicament. Barely a region is spared the scourge.

Every year, in Western Europe and North America, close to 90 million tonnes of sulphur dioxide are pumped into the atmosphere. This load of sulphur has acidified soils, lakes and groundwater supplies. It has destroyed vast tracts of forests, and affected fish breeding grounds. It even constitutes a major threat to human health. Until recently, acid rain was limited to the industrial areas of the northern hemi-

The fight for cleaner air

ously high, dramatically diminishing the quality of life of its inhabitants. Eastern Europe's factories spew more than 26 million tonnes of sulphur dioxide into the air annually. Poland has the reputation of being the most polluted country in the region. No less than 95 per cent of the country's river water is unfit for drinking, and half the lakes have been acidified. The situation is as bad in neighboring Czechoslovakia. In Hungary, public health biologists estimate that illnesses traceable to environmental pollution consume more than 13 per cent of the country's health budget. In the Commonwealth of Independent States (the former Soviet Union), the situation is critical. Over 100 cities, including Moscow, have air pollution levels ten times as high as the acceptable standards set by the Soviets. Even in areas remote from industrial facilities, air pollution can be damaging. In parts of Africa and Amazonia, smog levels are as high as those of Central Europe, as a result of burning vast forests and grasslands to clear land.

sphere, but recent data confirm that threatening levels of soil acidity have been found in parts of Brazil, Colombia, Venezuela, India, Southeast Asia, Japan and China. It has also been detected in some virtually unindustrialized areas of Africa, where it stems mainly from land clearing and biomass burning.

THE OZONE HOLE

For many, the depletion of the ozone over the Antarctic has come to symbolize human aggression toward nature. Ozone is a form of oxygen that exists throughout the air, with about 90 per cent clustering in the high atmosphere in a belt known as the ozone layer. This layer forms a protective shield that absorbs much of the sun's ultraviolet radiation which, if allowed to reach the earth, would cause skin cancer and threaten many terrestrial and aquatic life forms. It might also damage crops and phytoplankton, the basis of the marine food chain.

Although the dangers of ozone depletion have been known for some time, and its causes linked to CFCs (chlorofluorocarbons), it was the discovery in 1986 of a hole in the ozone layer above Antarctica which galvanized the international community to action. The 1989 hole covered some 26 million square kilometres. Experts believe that the ozone hole will likely increase, since the existing perforation was caused by gases released before 1980.⁽²⁾

CFCs used in refrigeration, synthetic foam, solvents and aerosol propellants are prime destructive agents of the ozone layer. At current rates, nearly 1 million tonnes of CFCs escape into the atmosphere, where they can remain active for more than a century. Of these 1 million tonnes, 70 per cent originate in the industrialized countries, 14 per cent in Eastern Europe and the Commonwealth of Independent States and 16 per cent in the developing countries. Another culprit is halons, which destroy ozone with even greater efficiency. Halons are widely used in fire extinguishers.

CIDA Photo: David Barbour, Mexico



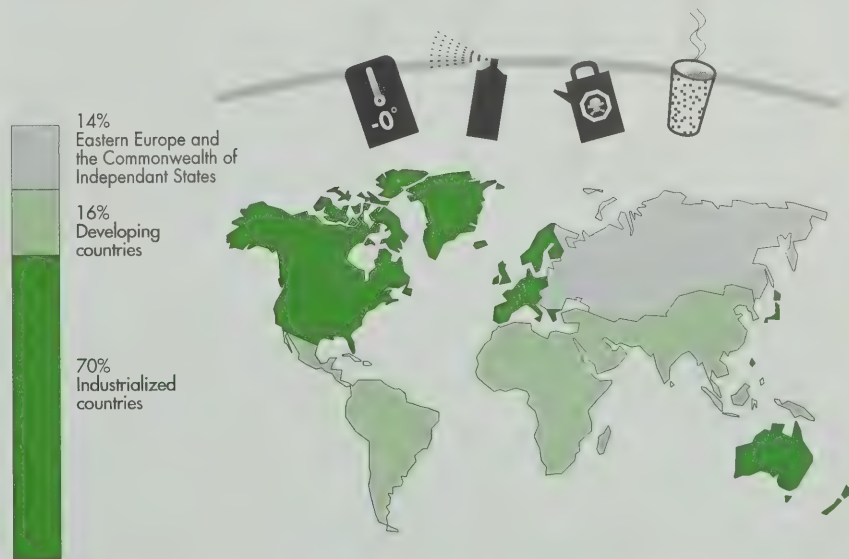
Harmful by-products of industrialization are the prime destructive agents of the ozone layer.

Efforts to address the possible threats of ozone depletion led to the adoption of several conventions, including the Montreal Protocol on Substances that Deplete the Ozone Layer. This Protocol called on countries to phase out the production and use of CFCs. It came into force on January 1, 1989. But it was soon considered to be inadequate, as scientists discovered more ozone depletion than expected.

Reports indicating the formation of

the ozone hole over the Arctic prompted representatives from 82 countries and the European Community to step up efforts. In the Helsinki Declaration on the Protection of the Ozone Layer, the parties agreed to completely phase out CFCs by the year 2000 or sooner, and halt use of halons and other damaging chemicals. All nations agreed that developing countries would require extensive assistance to switch to complex and costly substitutes.

Chlorofluorocarbons (1989)



A NASA report confirms possible ozone hole over the arctic

Two years ago, Canadian scientists observed a disturbing phenomenon: the appearance of an ozone hole over the Arctic. But their findings were rapidly disputed, and later dismissed, by their American colleagues. A recent U.S. report, however, confirms Canadian scientists' worst fears.

NASA researchers, using satellite and aircraft data, found historically high levels of ozone-eating chlorine compounds over populated areas of the northern hemisphere last January. These chemicals are known to be chief agents of ozone destruction. The NASA report also found that levels of nitrogen oxides, which help slow and reverse ozone depletion, are down. These new readings suggest that a process similar

to the one that led to a 40 to 50 per cent depletion over Antarctica is under way over the Arctic as well. In other words, ozone depletion over the northern hemisphere is almost certain within this decade.

As the ozone layer gets thinner, people may have to cover up year-round to guard against harmful radiation from the sun. Experts expect a significant increase in the incidence of skin cancer and cataracts over the next ten years. Areas most likely to be affected include the northern part of the U.S., Canada, northern Europe and the Commonwealth of Independent States. Canadian authorities have already issued a warning advising parents to carefully monitor their children's exposure to the sun.

GLOBAL WARMING

Too much of a good thing?

If the world's atmosphere did not act naturally like a greenhouse, life on earth would not be possible. The greenhouse effect has kept the planet at an average temperature of about 13°C warmer than it otherwise would be. But human activities are upsetting the balance in two drastic ways. First, we release extra carbon dioxide by burning huge quantities of fossil fuels and we pump methane and CFCs into the atmosphere. Second, we are destroying forests, which act as a sink to absorb excess carbon dioxide.⁽³⁾ To some experts, the possibility of climate change overrides all other environmental issues. The problem is also without precedent. Never before has humankind been able to interfere so extensively with the planet's basic life-support systems. It is generally

accepted that increasing greenhouse gases in the atmosphere will make the Earth warmer. Despite the scientific community being divided over how much global warming has occurred, how much is still to come, and what the climatic consequences will be, a growing consensus seems to be emerging.

Sources

Greenhouse gases are distributed widely around the world, with the burning of fossil fuels (coal, oil and gas) and industrial use of CFCs being the biggest sources. These are followed by deforestation and agricultural activities such as land clearance, rice paddy cultivation, livestock production and increased use of fertilizers. Overall, industrial countries account for 55 per cent of the increase, but the developing countries' share is steadily increasing.

Altogether, the world added about 6.5 billion tonnes of carbon — as carbon

dioxide or other heat-trapping gases — to the atmosphere in 1987, the last year for which complete figures exist. That amounts to about 1.25 tonnes of carbon for every human being on this planet. But not every citizen or every country shares the responsibility equally. A 'Greenhouse Index' that ranks countries based on emissions of heat-trapping gases finds the United States at the top of the list, followed by the Commonwealth of Independent States, Brazil, China, India, Japan and Germany, with Canada coming twelfth after Italy. Ranked by the Greenhouse Index, every major region of the world and every continent are represented in the top 50 countries; all except Africa are represented in the top twenty.⁽⁴⁾ Global warming is truly a global problem.

The major causes reside in human population growth and the world's insatiable appetite for energy. Energy use has grown tenfold in the last 90 years, most of it through an increase in fossil fuels. In the period from 1860 to 1987, the total release of carbon from human activities equals an estimated 241 billion tonnes.⁽⁵⁾

Dire consequences

What worries experts is not only the size of this change, but also its speed. Global temperature changes of 1 to 2°C have generally taken from 1,000 to 10,000 years. This one will take place in half a century. Such sudden changes would affect the environment in many ways, although the precise effects remain a matter of dispute. But they are most likely to include shifts of climatic and ecological regions, altered rainfall patterns and increases in the frequency and intensity of extreme climatic events, such as crippling droughts and violent tropical storms.⁽⁶⁾

Most forecasters have focused on the three most likely effects: the likelihood of rising sea levels and widespread coastal flooding, the consequences for forests, and the impact on agriculture. Overall, the potential consequences are alarming.

Scientific consensus

The International Panel on Climate Change, convened by the United Nations to review the existing evidence on global warming, confirmed in its 1990 report that human activities are altering the atmosphere. The panel's report, prepared by a group of 200 scientists from more than 24 countries, states that the current pace of

production of carbon dioxide and other greenhouse gases will lead to a doubling of their pre-industrial concentrations by 2050. According to its findings, by the end of the 21st century, global average temperature will increase by 3°C — a rate of temperature change not seen for tens of thousands of years.

As global warming proceeds, the sea level is expected to rise due to melting ice and thermal expansion of the oceans. It has been estimated that a global warming of 1.5 to 4.5°C would lead to a sea level rise of 20 to 140 cm. Such a rise would permanently submerge wetlands and lowlands, accelerate coastal erosion, exacerbate coastal flooding, and increase the salinity of underground water.⁽⁷⁾ The worst effects would be felt by people in coastal areas, which contain up to one-third of the world's population, and more than one-third of the planet's economic infrastructure. A billion people could easily become environmental refugees.⁽⁸⁾ Such shifts could change both boundaries between nations, and the shape and strategic importance of international waterways.⁽⁹⁾

Forests would also be gravely upset by global warming, especially if the time to adapt is less than a century. The basic question is whether the trees and plants will be able to migrate poleward as fast as their ranges shift. Normally, species migration is a slow affair, particularly where plants are concerned. If this holds true, it could mean the gradual extinction of many forests. In any case, changes in rainfall and snow patterns could make the forest more vulnerable to fire, pests and weeds.⁽¹⁰⁾

A shift to a warmer climate would bring major, but unpredictable, shifts in rainfall patterns, snowfall accumulation and soil moisture, thereby exerting a significant influence on the world food system. The impacts on agriculture could be double-edged: climate change could alter significantly the location of the main food-producing regions. It could also open up new ones.

Because global warming is likely to be greater at the poles than closer to the Equator, the impact on temperate agriculture will be considerable. Although scientists are unsure, arid conditions could convert a significant portion of the world's current bread-baskets into deserts. On the other hand, an increased carbon dioxide concentration in the atmosphere could have a beneficial effect on crop yields. With an expansion northwards of cultivated areas and shifts in rainfall



Illustration: Paula Taaffe

patterns, northern countries, like the Commonwealth of Independent States, Canada, Sweden or Denmark, could benefit. However, this argument has its flaws: northern soils are known to be less fertile than those in the south and soil formation takes

considerable time.⁽¹¹⁾ Several models predict that humid tropical areas could get wetter still. Arid or semi-arid areas — such as large parts of Africa, Brazil, Australia, China, Pakistan, and India — could expect more droughts.⁽¹²⁾

The greenhouse gases

Five gases are responsible for the bulk of global warming. These gases, transparent to the incoming solar energy, trap in infra-red energy emitted from the earth's surface.

Carbon dioxide accounts for about half of global warming. Burning fossil fuels is the main source of man-made carbon dioxide emissions. It is estimated that about 5000 million tonnes of carbon are released each year.

Chlorofluorocarbons are responsible for about 20 per cent of warming. Close to one tonne of CFCs is emitted each year. Concentrations have risen rapidly from 150 parts per trillion by volume in 1977 to 226 pptv in 1986. Photochemical destruction in the upper atmosphere and slow uptake by the oceans are the only known sinks for CFCs.

Methane accounts for perhaps 16 per cent of the warming effects. The rise in

methane production is particularly worrisome. Methane is 20 to 30 times more efficient than carbon dioxide at trapping heat, and its concentration in the atmosphere has been increasing more than 1 per cent per year. Within 50 years, it may be the most significant greenhouse gas.

Low-level ozone, produced in car exhausts and other combustion processes, accounts for 8 per cent of the warming. Ozone's contribution to the greenhouse effect is complicated by interactions with trace gases. The most common trace gases in the atmosphere include carbon monoxide, nitrogen oxides, ammonia and trace sulphur compounds.

Finally, cars and trucks emit nitrous oxide, along with the burning of coal. Nitrous oxide also results naturally from microbial processes in soil and water.

Is global warming upon us?

Most climate experts caution that it is too soon to declare that the warming has begun. They do, however, agree that it is only a matter of time before heat trapped in the atmosphere by synthetic chemicals raises world temperatures, wreaking havoc by melting polar ice caps, raising sea levels and changing the climatic processes upon which forests and crops depend.

Two recent studies confirm that a warming trend is already under way. Teams of scientists in the U.S. and Britain found 1990 to be the warmest year in

more than a century. One year is far from being a trend, especially since temperatures naturally vary from one year to another. But for NASA's Goddard Institute for Space Studies, the new data means that the seven warmest years since 1880 have all occurred in the last 11 years. If global-warming specialists are correct, temperatures could rise by at least 1.5°C by 2030 and by another 0.5°C by 2050. That may not sound like much, but a mere 5°C was enough to bring the earth out of the last Ice Age.

Any solution in sight?

What, if anything, can be done to forestall, or at least slow, the effects of global warming? For one thing, understanding the problem is crucial. Some of the damage done to the environment is irreversible, and a certain amount of warming now appears inevitable. But the world can still mitigate the problem. Action taken today can stabilize future warming, and allow

societies more time to adapt to unavoidable changes.

Many policies have been proposed to address this complex issue. It seems clear, however, that any successful program of action would have to include five major elements:

- increasing the efficiency of energy production and use;
- switching from carbon-intensive fuels, such as coal, to less carbon-intensive fuels, such as natural gas;



CIDA Photo: Dilip Mchra, Sri Lanka

- developing alternative sources of energy, especially solar;
- getting rid of CFCs;
- initiating major changes in land use to reduce and reverse deforestation (since mature forests tie up large amounts of carbon).

Slowing population growth is a necessary step in order to reduce demands for energy. If action is taken now to slow population growth to replacement level, world population will peak at around 8 billion. If not, it could rise to 10 to 15 billion, with disastrous consequences for people and their environments.⁽¹³⁾

Managing climate change already challenges the international community. The sum of the measures required to control the effects of change may amount to as big a revolution in human history as the Industrial Revolution, which created it.⁽¹⁴⁾ For one thing, it will increasingly require the cooperation and involvement of Third World countries, and international cooperation on an unprecedented scale. Let there be no illusions. No nation can isolate itself from the effects of pollution or global warming. Because, to one degree or another, all elements of societies are involved in creating the problem, there can be no solution unless all humans agree to play a role in solving it.



CIDA Photo: Roger Lemoyne, Niger

POLLUTING THE WATERS AND OCEANS

Water is Earth's most distinctive element, covering 70 per cent of its surface... and from space, the dominant color of our planet is blue.

No resource is so pervasive, yet so scarce. The reason is that some 98 per cent of this water is the salt-water of the oceans, inland seas, and deep underground basins. The remaining 2 per cent is freshwater. And Nature protects the greater part of it: 77 per cent is locked in ice caps and glaciers, 22 per cent is groundwater, and a remaining tiny fraction is present in lakes, rivers and streams.⁽¹⁾

Water set the stage for the evolution of life on this planet and remains a basic ingredient of all life forms. Some view it as the most precious resource the earth provides to humankind. Yet, people throughout the world have been remarkably short-sighted and negligent with this basic resource.⁽²⁾ As a result, both the quantity and quality of available water is fast becoming a crucial issue. Managing water resources in a sustainable way will likely emerge as one of the greatest challenges of this decade.

per cent of the world's population, already suffer serious water shortages.⁽³⁾

Depletion of groundwater is common in India, China and the United States. In the Commonwealth of Independent States, the water level of both the Aral Sea in Uzbekistan and Lake Baikal in Siberia has dropped dramatically, as a result of agricultural and industrial growth in both regions. Water shortage places heavy constraints on development. It can also lead to conflict. River water disputes, leading to violence, have already occurred in several regions, involving both rich and poor countries alike.⁽⁴⁾

Global water use breaks down into three broad categories: irrigation, which consumes 73 per cent of all withdrawals, industrial uses, which consume 21 per cent, and domestic uses, which absorb about 6 per cent. Water use patterns, however, differ significantly from one

group of countries to another. In the developed world, industries account for as much as 40 per cent of all water use, while in the developing world, the bulk of water goes to irrigation.⁽⁵⁾

In the latter, irrigated land area has almost tripled since 1950, supplying about one-third of the world's food today. But less than 40 per cent of the water supplied for irrigation contributes to the growth of crops; the rest is wasted. In addition, poorly conceived and badly managed irrigation systems have ruined large areas of formerly fertile soils by waterlogging and salinization.⁽⁶⁾

DIRTY WATERS

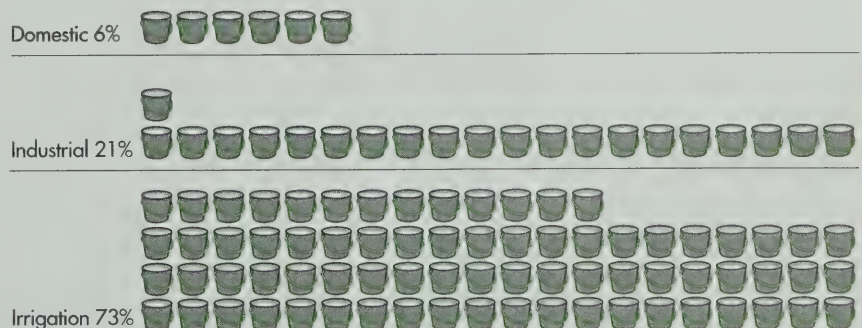
Assuring an adequate supply is not the only water problem facing many countries throughout the world: they also need to worry about water quality. The first global assessment of freshwater quality, recently carried out, found that contamination of water resources continues to increase in much of the world.

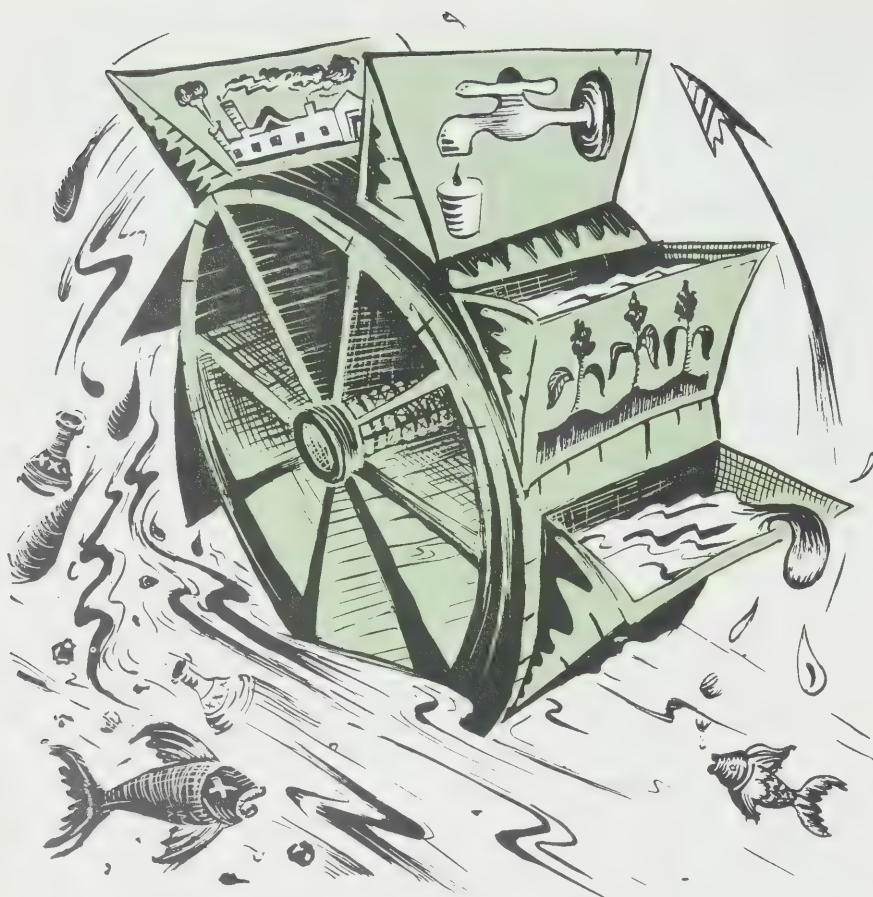
Throughout the world, water quality is impaired — often severely — by pollution and misuse of water, land and even air. Damage is done by domestic wastewater, industrial discharges and land-use runoff, while leaching from mine tailings and solid waste dumps, and acid rain are growing concerns. Contamination by organic pesticides, PCBs and other synthetic organics is widespread and locally serious in both high-income and low-income countries.⁽⁷⁾

IS THERE ENOUGH WATER?

Global water use doubled between 1940 and 1980 and is expected to double again by 2000. There is still, however, an abundant supply of water — in principle, enough to sustain up to 20 billion people. Yet, because both the world's population and usable water are unevenly distributed, some 80 countries, with 40

Global water use





Progress in some... setbacks in most

Most rivers in the industrialized world have seen some reduction of the levels of certain types of pollutants since the 1970s. Such progress came as a result of clean water legislation, and the treatment of domestic wastes.

But despite progress in some areas, there are clearly grounds for growing concern. Nitrate levels in some European rivers are 45 times higher than those in the

natural background.⁽⁸⁾ Heavy metals are severe problems in Scandinavian rivers and the Rhine, and are locally severe elsewhere in Europe and North America. Countries in Eastern Europe and the Commonwealth of Independent States are also experiencing extremely high levels of pollution from all sources — domestic, industrial, agricultural — with industrial pollutants the most obvious and serious problem.⁽⁹⁾

In most industrializing countries, both organic and industrial river pollution are on the increase, as annual per

The dying Aral Sea

The former Soviet administration so abused the Aral Sea, by diverting river water which feeds it, that its surface area has been reduced by 40 per cent in the last 30 years, while its volume dropped 67 per cent! Depletion of the sea by human use was matched by a relatively dry regional climate in the first half of the 1980s. The result is an almost complete extinction of animal life in the basin and a profound disturbance of the marine ecosystem.

The surrounding land area has also been greatly disturbed, with 30,000 square kilometres turned into desert, inten-

sive wind erosion, and large quantities of salt and dust blown into the atmosphere. The former maritime towns of Muinak and Aralsk, with populations of several thousands, now lie in the desert. As a result, drinking water is scarce. Deteriorating human health and unemployment, due to the closing of traditional marine trades and other social problems, are intense issues. Once the fourth largest basin of the world, the Aral Sea could become a landmark in environmental disasters, a symbol of what short-sighted agricultural policies and serious misconceptions can do to the environment.

capita income and population rise. Over the past few decades, industrialization was seen as more important than concerns about pollution. As a result, in some regions, notably East Asia, degradation of water resources is now considered the most serious environmental problem.

In less developed countries, where the population is growing rapidly and where domestic sewage treatment is limited, water pollution by organic wastes is widespread, especially in large cities. Excessive organic pollution levels have been found in many streams and rivers in Central and South America, as well as in South and Southeast Asia. In India, close to 70 per cent of the surface water is polluted. China's rivers also seem to be suffering from increasing pollution loads. In Malaysia, some 40 major rivers are so polluted that they can no longer support fish or other aquatic life. Runoff from the increasing and uncontrolled use of fertilizers and pesticides represents an additional threat. Overall, the quality of water in the developing world is so bad that, as a result, millions of children die each year from water-related diseases, such as diarrhoea, that can be prevented by proper water and sanitation facilities.⁽¹⁰⁾

OCEANS IN CRISIS

Scientists have known for some time that oceans interact with the atmosphere and contribute to the making and shaping of the world's climate. Oceans constitute a source of energy, minerals and medicines that is growing in importance as technology progresses and land resources become scarce. Coastal waters and the continental shelf are also vital sources of food, yielding over 90 per cent of the world's fish catch.

Yet, seas have also become the planet's ultimate waste dump, as every year billions of metric tonnes of silt, sewage, industrial waste, chemical compounds and pollutants dissolved in runoff pour into the world's oceans. In fact, most of the wastes and contaminants produced by human activities eventually reach the sea. While some

pollutants are highly visible, such as oil spills, others are highly dangerous. Traces of DDT have been found in remote parts of the Antarctic; plutonium has been discovered on the eastern and western coasts of the United States. High levels of PCBs, DDT, mercury, cadmium and other chemicals are blamed for the collapse of the beluga whale population in the St. Lawrence River. Is it because the oceans are part of the world's global commons, exploited by many countries and the responsibility of none, that they are so difficult to protect?

Are the oceans irreversibly polluted?

In early 1990, a group of scientists — called the Group of Experts on the Scientific Aspects of Marine Pollution (GESAMP) — convened by the United Nations, investigated this question. They determined that “chemical contamination and litter can be observed from the poles to the tropics and from beaches to abyssal depths,” but that the distribution of pollutants was uneven. The GESAMP scientists concluded with a warning that marine pollution is worsening and a call for

The fight for clean water

The large number of people with no access to safe, clean water and adequate sanitation services, especially in rural areas, continues to be a matter of deep concern. The International Drinking Water Supply and Sanitation Decade was launched in 1981 by the UN to promote clean water supplies and adequate sanitation facilities for everyone by 1990. The actual number of people covered by water and sanitation services has increased slightly — over 530 million people gained access to clean water, and safe sanitation was provided for a further 325 million during the first eight years of the Decade. These figures show gains, both in absolute numbers and in the percentages of the population served. Yet, because of rapid urban population growth, more than a billion people might not have satisfactory sanitation services by the year 2000.

In addition to population growth, slow progress toward achieving the Decade's goals can be imputed to several factors, including the generally poor economic performance and the debt burden of developing countries. Third World governments are not expected to boost

spending significantly on water supply and sanitation in the 1990s, unless a strong economic performance helps relieve current budget constraints. Nonetheless, specialists from the World Health Organization hope that enough knowledge and experience has been gained to reach this goal by the end of this decade.

CIDA Photo: Pat Morrow, Nepal

action. “We fear, especially in view of the continuing growth of human populations, that the marine environment could deteriorate significantly in the

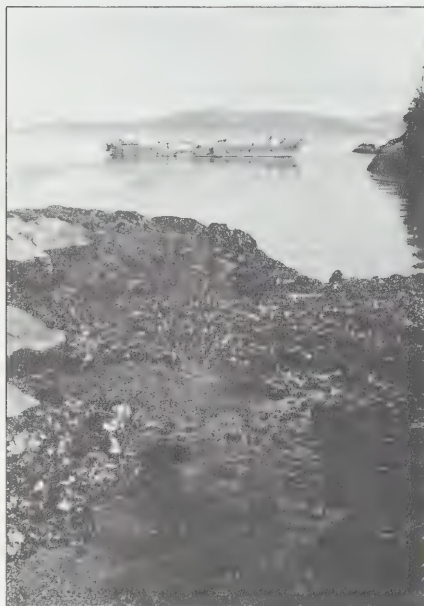
next decade unless strong, coordinated national and international action is taken now.”⁽¹¹⁾



CIDA Photo: Roger Lemoyne, Thailand

COASTAL ZONES IN DANGER

The coastal zone is where land, sea and atmosphere interact, and has one of the highest biological productivity levels on earth. It supports marine life ranging from plankton to fish and whales. Coastal areas are also home to more than half of the world's population, which depends on its resources and largely influence its state of health. Their strategic and commercial importance is such that two-thirds of the world's largest cities are near tidal estuaries. Close to 90 per cent of the marine fish harvest is caught within 200 miles of the shore. The 240,000 square kilometres of coastal mangrove forests are essential habitats for many economically important fish species. And, of course, coastal zones



First Light Photo: R. Hartmiller

Aftermath of the Exxon Valdez oil spill.

support a highly modern and profitable tourist industry.⁽¹²⁾

Despite all those advantages, the ecosystems and resources of the coastal zone are rapidly deteriorating due to intense and increasing human pressures.⁽¹³⁾ According to GESAMP scientists, most of the world's coastal areas are seriously polluted. Yet, corrective actions can make a significant difference. The decrease in DDT concentrations in fish and shellfish in the U.S. and Sweden confirms that changes are

possible. However, efforts to control marine pollution are presently thwarted by serious constraints, including weak public support, inadequate funding, lack of trained personnel and equipment, and a reluctance in many countries to confront powerful economic interests.

Most marine pollution reaches the oceans from a variety of land-based sources. In terms of importance, sewage is a prime polluter. A 1987 study by the United Nations Environment Programme found that most of its Ten Regional Seas Programme, covering the majority of the world's marine regions, identified microbial contamination of the oceans as the subject of highest concern.⁽¹⁴⁾

Chemical pollutants constitute another assault on marine environment. These chemicals come from a variety of sources — industries, airborne pollutants, shipping accidents, pesticide runoff, mine tailings and waste incineration. Each year, the rivers and streams entering the oceans carry some 20 billion tonnes of suspended matter and dissolved salts, including heavy metals and organic compounds. Even at low levels, these pollutants are known to be harmful to marine wildlife. Moving through the food chain, they constitute a serious threat to human health.

The wreck of the supertanker Exxon Valdez in Alaska's Prince William Sound on March 24th, 1989, was the most dramatic ocean disaster in recent memory. The spill created an environmental calamity that will linger for decades. Although oil spills get media attention, far more oil silently finds its way into the oceans via street runoff, ships flushing their tanks, and effluent from industrial facilities. A 1985 National Research Council report found that 21 million barrels of oil annually enters the seas this way.⁽¹⁵⁾

BOUNTY OF THE SEA

Fish is one of the most widely distributed food commodities in the world. For many developing countries,



fish is a vital item of daily diets, accounting for more than 40 per cent of the animal-protein supply for over 2 billion people.

Along with pollution, warns the UN Food and Agriculture Organization, overfishing threatens the future productivity of the seas. Most scientists agree. The global commercial fish catch is nearing the maximum sustainable yield of 100 million tonnes that the oceans can produce each year. Signs of stress are obvious. At least 42 stocks are already over-exploited or depleted.⁽¹⁶⁾

This comes as a result of a dramatic increase in the total world fisheries catch in the last few decades. Strong and sustained demand for human consumption and livestock feed, in both



CIDA Photo: Paul Chiasson, Guinea

For many people living in coastal areas, small-scale artisanal fishing is the main source of nutrition and income.

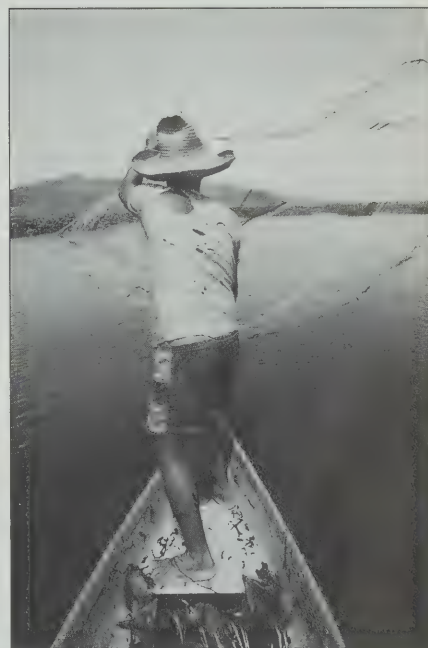
the developed and developing world, has pushed fishery resources to their limits. The annual marine catch increased by another 30 per cent over the last decade, with the Commonwealth of Independent States and Japan together landing one fourth of the world's total. Further long-term increases, however, are not expected, since many regional fisheries now show signs of drastic overfishing. Most demersal fish stocks (cod, hake, haddock) are fully fished. And much of the increases of the 1980s came from bigger catches of pelagic species, such as sardines and anchovies. The consequences of such heavy pressure on the stocks are not known.

This crisis situation prompted nations to protect their marine resources from international fishing

fleets. By 1980, almost all coastal states had taken legal steps to extend their authority to 200 miles, thereby asserting national ownership over 90 per cent of the world's fisheries resources. But asserting national rule, while a precondition for rational management, does not itself ensure more efficient conservation and use of fish stocks.⁽¹⁷⁾ Indeed, many developing countries with small navies or coastal patrols are having a hard time enforcing quotas. They also lack the programs, institutions and funding to fulfil their obligations. Even when such controls are in place, say experts, most often efforts have focused on symptoms rather than on causes. According to most marine scientists, the world has yet to grasp the importance of the oceans and of

human impacts on them, as well as the concepts and tools needed to manage relations between people and oceans.⁽¹⁸⁾

In response to challenges posed by the pressures of increasing demand for fish on stocks already overexploited, the 1984 FAO World Conference on Fisheries endorsed a strategy for fisheries management involving five programs of action. These principles and guidelines still remain valid. Most relevant to the issue of sustainable development are principles and practices for the rational management of fish resources, and the special role and needs of small-scale fisheries.⁽¹⁹⁾ In this respect, there is an urgent need to involve local communities in the management of marine resources and to rally worldwide efforts to reduce marine pollution and conserve the variety of marine life.



CIDA Photo: Peter Bennett, El Salvador

People the world over, concerned about the extent of destruction, are pressing for major changes. In 1988, 30,000 people formed a 25-mile chain in Sylt, Germany to protest North Sea pollution; 40,000 volunteers showed up to clean beaches in the U.S.; up to 100,000 Estonians, Lithuanians and Latvians linked hands along the Baltic Sea to call for a cleaner environment. Such actions show governments just how serious people are about better protection of the oceans.

SQUANDERING THE SOIL

Soil has been described as a nation's most precious resource, since food supply depends on it.

DEGRADING THE FERTILE EARTH

To biologists, it is a bridge between the inanimate and the living; to agricultural specialists, soil is the biosphere's foundation; to most farmers, the way to avoid famine and misery. Soil is all this and much more, for it has been proven that there is far more biological complexity in a handful of our planet's soil than on the entire surface of Mars or Jupiter! Yet, the Earth's soils are being stripped away, rendered infertile, or contaminated with toxic chemicals. It is a vital concern, since soil formation is a long and complex process which, under the best conditions, can take from 100 to 400 years to generate ten millimetres of topsoil. Once the soil is removed, however, it is gone for good.

Throughout the world, land-abuse practices have degraded the agricultural resource base: soil erosion on nearly every continent; acidification in Europe and North America; deforestation and desertification in all regions of the Third World; waterlogging and salinization of close to half of the world's irrigated lands.

Few resource problems are so important, yet so little publicized as land degradation. Because it exists in all countries of the world, rich and poor alike, it has been aptly described as the quiet crisis in the world economy.⁽¹⁾ And the toll is high. In Canada alone, farmers are losing over \$1 billion a year in farm revenues as a result of poor

land practices. These were recently described by a Senate Committee as creating the most serious agricultural crisis in Canada's history.

EROSION: THE UNKNOWN CRISIS

Soil erosion, a natural on-going process, has formed over the centuries some of the world's richest valleys. Within a balanced ecosystem, the soil is usually regenerated at roughly the same rate at which it is removed. But people have upset the balance. Specialists estimate that humans have increased the rate of natural erosion by at least 2.5 times in some zones. Misuse and neglect are

largely responsible for this process which squanders the soil.

Erosion cripples the land's long-term productivity, by depleting soils of their nutrients. Half the countries in the world and more than 50 per cent of all arable land are experiencing soil erosion at unacceptable levels. Worldwide, an estimated 26 billion tonnes of topsoil are being washed away or blown off cropland each year.⁽²⁾ At this rate, according to the FAO, 275 million hectares or 18 per cent of all arable land (equivalent in size to Quebec and Ontario) will be lost in ten years' time. By 2025, the same amount could disappear again, if no conservation measures are introduced. Overall, unchecked erosion could result in a loss of 29 per cent in food production from rainfed cropland.⁽³⁾

In the developing world, in particular, soil loss has reached critical levels. Ethiopia, for instance, loses as much topsoil as the U.S., though it is less than one-sixth the size. In the northern part of Africa, 35 per cent of the land is severely affected. In Guatemala, 40 per cent of the land's productive capacity has been lost to erosion. In western Asia, the figure reaches 65 per cent. In Haiti, quality topsoil no longer exists.

Generally, erosion occurs when farming practices fail to take conservation measures into account. Overworking the land is one of the main reasons soils are rapidly being

Protecting renewable resources



CIDA Photo: Virginia Boyd, Guyana

Renewable resources form an intricate part of our life-support system, and their protection is vital for all societies. History

holds examples of civilizations that collapsed as a result of soil erosion and other destructive practices. Yet, in today's world, the laws of nature are far from being respected. In the U.S., 40 million hectares of land (about the size of Newfoundland) have been damaged beyond rehabilitation, while in India, one-third of the arable land has been impaired by soil erosion. Throughout Third World countries, the deforestation of upland watersheds has led to a nearly permanent cycle of flood and drought. Renewable resources are not only vital, they are also intricately linked, and mismanagement of any one can entail serious and far-reaching consequences in others. Forest depletion, erosion and water mismanagement often go hand in hand.



depleted. It also explains why agriculture is in crisis in both the developed and the developing world. In the industrialized world, the heavy use of chemicals and fertilizers and too many pressures resulting from economic necessity, international prices and technological progress have created the problem. In the developing world, the burden of providing food for a growing population has increased pressure to expand cultivated areas, resulting in more and more marginal land being brought under the plow, with lower yields and great environmental damage. In both cases, erosion results from demanding more than the soil can naturally yield. The loss of topsoil reduces the amount of land available for growing food, decreases yields and increases the cost of food production.

But, the ill effects are not limited solely to food supplies. Eroded topsoil is carried to rivers, lakes and reservoirs, silting up dams, reducing reservoir storage capacity, shortening the life of irrigation systems, and increasing the incidence and severity of floods. All

over the world, the same factors are at work: overexploitation of prime and marginal lands has triggered erosion, resulting in soil ending up in places where it does more harm than good. The immediate results are economic: a decline in productivity and farm revenues. Over a period of time, there is

growing indebtedness for farmers and for countries, as well as increased food imports. The long-term effects are social: as productivity declines, malnutrition sets in and the vicious circle of poverty and environmental degradation increases. What is at stake is not simply a question of land degradation, but the deterioration of life itself through the destruction of basic elements of the earth's life-support system. In the end, squandering the soil is undermining the earth's capacity to feed a growing population expected to increase by over a billion people in the next nine years. Already there are signs that the number of human beings suffering from starvation and malnutrition is rising steadily.

IRRIGATION: PROGRESS AND SETBACKS

Of all the factors behind the success of the Green Revolution, none played a more crucial role than irrigation, both in feeding growing numbers of people and in providing an adequate living for rural populations. As a result, a good number of developing nations, especially in arid and semi-arid areas, depend heavily on irrigated crops for their food supply. Half the food produced in India and Indonesia is grown on irrigated lands; in China, it is 70 per cent; in Pakistan, 80 per cent.



CIDA Photo: Roger Lemoyne, Niger

The use and abuse of pesticides and fertilizers



CIDA Photo: Peter Bennett, Malaysia

Fertilizers and pesticides have become a fact of modern agriculture. Both are responsible for increasing food production. Use of chemical fertilizers per capita has increased fivefold between 1950 and 1983, with amounts varying widely from

fertilizer applied.

Overreliance on pesticides has also led to serious problems. Their indiscriminate use has destroyed natural predators and other species, and has led to pollution, contamination of surface and groundwater

one country to another: 32 kg/ha in India, 189 kg/ha in Egypt, 200 kg/ha in the U.S. and 533 kg/ha in Japan. Excessive use of fertilizers has been associated with many environmental problems, including water pollution and land degradation. Misuse is often the basic cause. Negative impacts could be reduced if fertilizers were used properly. Recent studies have shown that crops use only about 50 per cent of the

supplies, extinction of some species, and human illness. These negative side-effects have been largely ignored in the rush to control pests by what seemed to be the quickest and least expensive solution. But the early promise has now turned full circle: costs have soared and side-effects have multiplied.

It is unrealistic to believe that we can move instantly to a world without fertilizers, pesticides and other chemicals. The solutions are to be found in research, and above all, in widening education about their proper use. Alternative methods of control must also be used and combined in order to ensure an integrated approach to pest control. This could prove crucial as growing evidence indicates that pesticides are beginning to trickle into the food chain in all parts of the world.

Ironically, irrigation can also pose a serious threat. Mismanagement of water, by badly planned and poorly managed irrigation systems, may actually lower yield over the long term, by waterlogging the soil and building up deposits of salt and other minerals in the topsoil. Unless the salt is washed away, it accumulates, eventually turning once fertile farmlands into barren soils. According to the FAO, roughly half of the world's irrigated area of 271 million hectares suffers from either salinization, waterlogging or alkalization. In the U.S. alone, close to a quarter of all irrigated land is salinized. In South America, one-third to one-half of all irrigated areas is crippled by excessive salt. And it is a chronic problem in the plains of eastern and western China, the Indian sub-continent, Central Asia, the Middle East, southeastern Europe, and North and West Africa. Reversing excessive use of water, by pricing it responsibly or rationing it, is a first step in rehabilitation.

and carbon; they influence temperature and rainfall; they act as enormous sponges, collecting and distributing water; they protect soils from erosion;

they harbor millions of species; and they provide fuel and food for over one billion people.”⁽⁴⁾ In addition, they also contribute to economic development by



CIDA Photo: Pierre St. Jacques, Brazil

Brazilian rainforest reduced to ashes to give way to agriculture and ranching.

HARVESTING THE FORESTS

Forests perform protective, productive and regulative functions. They play a vital ecological role in the planetary recycling of oxygen, nitrogen

Treasures of a rainforest

Tropical forests, found mainly in Southeast Asia, Central and West-central Africa, and tropical Latin America, contain more than half of all species, constituting by far the richest ecosystem on earth. According to a U.S. National Academy of Sciences report, a typical six km² patch of rainforest may contain 750 species of trees, 125 kinds of mammals, 400 types of birds, 100 different

reptiles and 60 types of amphibians. In addition, each type of tree can support more than 400 insect species.

The loss of rainforests is distressing for other reasons, too: they influence climate and rainfall, protect watersheds and regulate water flows for farmers who grow crops that feed one billion people.

producing over \$300 billion of lumber, veneer and pulpwood each year.⁽⁵⁾

But the world's forests are at risk. Temperate forests have fallen to lumbering and development, with acid rain and other air pollutants now threatening the regenerative capacities of what remains. In the developing world, forests are seriously in jeopardy. Examples of misuse abound. Some 160 million hectares of upland watersheds have been destroyed over the past three decades in the foothills of the Andes and the Himalayas, in the Central American highlands, the highlands of East Africa, and in the uplands of Ecuador and Peru. As many as one billion people are now affected by flash floods. The Himalayan region now has the dubious distinction of being the most degraded watershed on earth. As a result, flood damages in India have averaged US\$1 billion a year in the last decade.

Of all forest habitats, none seems more threatened than the tropical rainforest. Forming a green belt around the equator, rainforests account for about 8 per cent of the planet's surface. Yet, they harbor a large percentage of the earth's species. In recent years, studies have shown that the world is losing up to 20 million hectares of tropical forests annually, an 80 per cent increase over earlier estimates!⁽⁶⁾ The pace of destruction could be even worse. According to the National Resources Defence Council, the new deforestation estimates based on latest satellite observations reveal that 16 to 20 million hectares are being cleared each year, about the area of the state of Washington.⁽⁷⁾

Overall, more than half of the world's tropical forests have disappeared since the turn of the century. Clearing has taken a significant toll in South Asia, Southeast Asia, Central and West-central Africa, and tropical Latin America. Figures show that Africa has lost 60 per cent of its original rain forests; Central America and Southeast Asia nearly two-thirds.⁽⁸⁾ Pressures are such that ecologists fear that most of Asia's forests could disappear in the next forty years. But it is in the Amazon that the fiercest destruc-

CIDA Photo: Pierre St. Jacques, Brazil



Perplexed by flash flooding, these Brazilian farmers are victims of degraded watersheds.

tion has taken place: 8 million hectares of forest were cut down for pasture from 1966 to 1978. In 1988 alone, an estimated 20,500 km² of Brazilian rain forest — an area larger than Belgium — was reduced to ashes to give way to agricultural production and other uses, especially ranching. To make matters worse, the new settlers have displaced native Indians, who have lived sustainably in this forest for centuries. Such destruction, according to ecologists, is one of the great tragedies of our time. Future trends leave little hope. According to most estimates, developing countries are expected to lose another 40 per cent of what is left of their forests by the year 2000, as a result

of land clearing and growing demands for wood supplies and fuelwood.

Wasting our bio-capital

When rainforests go, so too does a wealth of fauna and flora — genetic resources of precious value to human welfare. For some biologists, present destructive trends amount to nothing less than the death of birth. To British biologist, Norman Myers, it is "the greatest single setback to life's abundance and diversity since the first flickerings of life almost 4 billion years ago."⁽⁹⁾

Spurred by poverty, population growth, ill-advised policies and simple

Rainforest hotspots

Nearly every habitat is at risk, but it is in the tropics that the battle to preserve biodiversity will be won or lost. Biologists have identified 'hot spots' around the globe, habitats rich in species under severe stress. Among the troubled areas: Madagascar (where 90 per cent of the original vegetation has disappeared), the forests of the Himalayan foothills, the Island of Papua New Guinea, the Philippines, Malaysia, northern Borneo as well as forests in East Africa, the uplands of western Amazonia and the Atlantic coast of Brazil.

Why are so many species and environ-

ments threatened? Essentially, throughout the tropics, developing nations are struggling to feed their people, finance their development and raise cash to pay their international debts. How can developed nations demand huge debt payments and at the same time expect the debtors to preserve the forests, one of their best sources of income? Any attempt to save the world's richest eco-system must focus on reducing the debt burden of the poor. But just as important is a concerted campaign to convince local people that it is in their own long-term interests to preserve their environment.



CIDA Photo: Pat Morrow, China

It's a race against time as scientists record the countless treasures that genetic diversity has to offer.

greed, humanity is reducing biological diversity to its lowest level in the last 65 million years. The ultimate consequences of this collapse are beyond calculation and certain to be harmful. According to some estimates, in the next three decades, humankind will drive an average of 100 species to extinction every day. That, in essence, is the biodiversity crisis.

Does it matter?

Why should we care about the survival of tropical species we will probably never see? The answer is simple. Variety, say scientists, is the very stuff of life. Estimates of the total number of species inhabiting the earth may vary between 5 and 30 million. To date, however, only 1.7 million species have actually been identified. Ironically, since hundreds may be extinct by the year 2000, the world

has neither the scientists nor the time to identify the as-yet uncounted. Such destructive trends leave specialists bewildered. It is, says biologist Daniel Janzen, as though the nations of the world decided to burn their libraries without bothering to see what was in them.⁽¹⁰⁾

The loss of genetic diversity imperils the world's current food supply and jeopardizes the world's ability to feed increasing numbers of people. Crop breeders throughout the world are increasingly dependent on wild strains to improve domestic varieties. It also threatens the precarious supply of medicines. Half of all medical prescriptions dispensed in the world have their origins in wild organisms. In the U.S. alone, the value of these medicines and drugs amounts to some \$14 billion a year. In Amazonia, indigenous people use more than 1,300 plants as medicines; many of these have yet to be studied by scientists. Hidden some-

where in the rainforest might be plants with cures for AIDS, cancer or multiple sclerosis.

Why the destruction?

Several reasons account for the destruction of the world's tropical forests. There is even considerable debate among experts as to which ones are the most important. One interpretation emphasizes population growth and growing food and fuelwood needs, the other logging and ranching. A third one blames government incentives and policies for much of the devastation. As usual, reality is more complex, as these destructive agents are often interrelated, and act together in the same area.

In most regions, population growth is a major culprit. Both unfair distribution of land and low agricultural productivity are pushing poverty-stricken millions into clearing tropical lands for crop production. Much of the land cleared has poor-quality soil which erodes easily once cleared of its protective cover.

In West Africa and parts of Southeast Asia, the single most important cause seems to be commercial logging. Companies often resort to poor logging practices when they harvest the world's best hardwood — such as teak and mahogany — with the result that the damage is tantamount to destruction. Efforts are badly needed to undertake a sustainable management of forest resources. In Latin America, wealthy farmers have cleared large areas of tropical forests to raise cattle for export demands. Ranching in this region accounted for more than two-fifths of forest clearance between 1971 and 1986. In either case, forests are stripped without adequate replanting or restoring.

The conversion to agricultural land can also reflect a government policy to expand the agriculture base as in Brazil, or resettle people as is the case in Indonesia. It may also come as a result of huge projects (highways, dams and mining operations) that convert and destroy acres of previously

undisturbed forest lands. In other circumstances, the demand for fuelwood and fodder and other forest products is putting severe strains on forests, especially where the resources cannot meet the demands.

In addition to creating severe water and land problems, deforestation is also affecting the world's climate. Deforestation is second only to the burning of fossil fuels as a source of increased atmospheric carbon dioxide, accounting at times for as much as 33 per cent of the annual emissions of carbon dioxide, or 2.8 billion tonnes. ⁽¹¹⁾ Early estimates indicate that the annual build-up of carbon dioxide in the global atmosphere could be offset by reforesting 3 million km² of degraded lands in the tropics, at a cost of \$12 billion a year for 12 years... or a small part, say experts, of the cost of adapting to the greenhouse effect. ⁽¹²⁾

DESERTIFICATION

Deforestation and other land-abuse patterns in arid and semi-arid areas often lead to desertification — or loss of productive land. But desertification is not limited only to those regions. Over 100 countries and some 800 million people are affected by it, with Australia, the U.S. and the Commonwealth of Independent States heading the list of industrialized countries. In the U.S. alone, over 90 million hectares of land have experienced severe or very severe desertification. In the developing world, the situation is nothing short of critical. Two-fifths of Africa's productive land could turn into desert, as could one-third of Asia's and one-fifth of Latin America's.

In the past, deserts expanded mainly as a result of climate changes. Today, desertification is caused almost entirely by the mismanagement of land and water resources. ⁽¹³⁾ This misuse manifests itself in felling trees to provide fuel, overgrazing by domestic animals and harmful land-use practices, all of which increase erosion and land degradation. According to the UN, agricultural production losses due to

worldwide desertification amount to some \$26 billion a year.

Africa is especially vulnerable. The spread of the desert explains, to a large extent, the region's failure to match overall population growth with food production. In the Sudan, for instance, the desert has spread southward at the rate of 100 kilometres in 17 years. Desertification strikes the individual, the family, the community and the nation. Its consequences include not only increased hunger and malnutrition, but also social instability and conflict, as spreading deserts drive environmental refugees in their millions across borders.

Desertification in Africa



THE SWELLING PROBLEM OF WASTE DISPOSAL

Another form of degradation, often unaccounted for, is the poisoning of land by toxic waste. Roughly 300 to 400 million tonnes of hazardous

wastes are generated each year by industrial activity, the majority of which ends up in landfills. In addition, an estimated 70,000 to 80,000 chemicals are currently on the market and in the environment; up to 2,000 new chemicals are added each year, many without adequate prior testing of their effects.



CIDA Photo: Peter Bennett, Namibia

Banning the export of hazardous waste



The Fraser River, Canada

First Light Photo: Thomas Kirchlin

By its nature, it is difficult to dispose of toxic and hazardous waste, since it pollutes whatever environment — air, soil or water — it enters. Waste also travels. An unknown amount has found its way to developing countries and Eastern Europe.

Among the revelations in East Germany after the collapse of hard-line communism was the country's role as a garbage dump for its neighbor countries. The Third World is even more ill-equipped than Eastern European countries to deal with toxic waste. Few developing countries have established the basic foundation of a hazardous waste management system. Most have no regulations, nor trained manpower, and no facilities capable of treating and disposing of hazardous wastes. Yet, over the years, a disturbing trend has emerged: developed-country industries have resorted to exporting hazardous waste for disposal in Third World countries. The extent of the problem is more massive than previously thought. A study

by Greenpeace lists 115 shipments of toxic waste during 1986-88 that were sent to Latin American and African countries. In some cases, the dumping was the result of legal contracts by Third World companies or governments accepting waste in exchange for hard cash. In other instances, hazardous wastes have been dumped illegally. Hazardous waste dumping in some African countries has raised widespread concern.

Recently, countries have taken action to halt the indiscriminate dumping of hazardous wastes. A global convention was signed in Basle, Switzerland in March 1989, by over 30 countries to ban waste exports to countries that lack the legal, technical and administrative capacity to handle them. This agreement does not mean an end to the commerce of toxic waste. But it has signalled the international will to better control the menace hazardous wastes pose to the welfare of our environment and to the health of all the world's peoples.

Industrialized countries generate by far the largest amounts of toxic and hazardous wastes. But developing countries are steadily increasing their share. In fact, scarcely a country on earth has been spared the scourge. From toxic waste dumps in the U.S. to the waste-choked sewage of Calcutta, to the industrial landfills of Germany, and the illegal toxic dump sites in Latin American and African countries, the littering goes on relentlessly.

Most countries still rely on land disposal methods for their hazardous wastes. In the U.S., 80 per cent of solid waste is now dumped into 6,000 landfills. This number is shrinking fast: in the past five years, 3,000 dumps have been closed; by 1993 some 2,000 more will be filled and shut. In addition, many waste disposal sites are environmental time bombs that need remedial action. Several hundred cases of groundwater

contamination by chemicals leaking from unsafe landfills have already been reported. The cost of the clean-up is awesome: \$1.5 billion for the Netherlands; \$10 billion for West Germany; and \$20-\$100 billion for the United States.⁽¹⁴⁾ Other careless dumping has exposed people directly to hazardous chemicals. At Love Canal, near Niagara Falls, homes were built on a former dump containing pesticides, chemicals and sludge.

A growing mess?

The voyage of the "Pelicano" that sailed around the world for two years, seeking a port that would accept its cargo of 14,000 tonnes of toxic ash is a stark symbol of what waste problems have become. And future trends provide no relief in sight. The likely scenario for the next 40 years? Developing countries will be responsible for more than 90 per cent of the world's new population. This alone will increasingly shift the responsibility for global waste generation toward poorer countries. Since most of them are ill-equipped to confront this massive problem, say experts, further trashing can be expected.



CIDA Photo: Roger Lemoyne, Bangladesh

Waste disposal and access to clean water — mounting problems for growing slums.

Part 2: Looking Into the Causes



THE MAIN CULPRITS

"... This we know, the earth does not belong to man; man belongs to the earth. All things are connected like the blood which unites a family. Whatever befalls the earth, befalls the sons of earth.... Whatever he does to the earth, he does to himself."

Chief Seattle of Washington State's Dwamish Tribe, in an 1855 letter to President Franklin Pierce.

As seen in Part One, the extent of the environmental crisis is awesome. But not all people are equally responsible for the present destruction. Much more environmental damage, say experts, occurs at the hands of the one billion ultra-rich people and the one billion impoverished people than the other three billion in between.⁽¹⁾ This chapter focuses on some of the root causes of the most destructive patterns: affluence and waste, population growth and poverty, and the urban explosion. But first, it explores the legacy of the industrial revolution.

Throughout the 20th century, industrialization seemed to be the only path toward a diversified, modern economy. It offered developed and developing nations solutions to poverty, poor health, unemployment and, eventually, to population growth. Yet it also carried a price. In the name of progress, smokestacks have pumped noxious gases into the atmosphere, factories have dumped toxic wastes into rivers and streams, forests have been stripped, lakes poisoned with pesticides, underground water supplies polluted. For decades, scientists and philosophers have warned of the possible consequences of all this. No one really paid much attention. Now, there is an urgent need to take a close look at the factors behind the threatening collapse of earth's life-support systems.

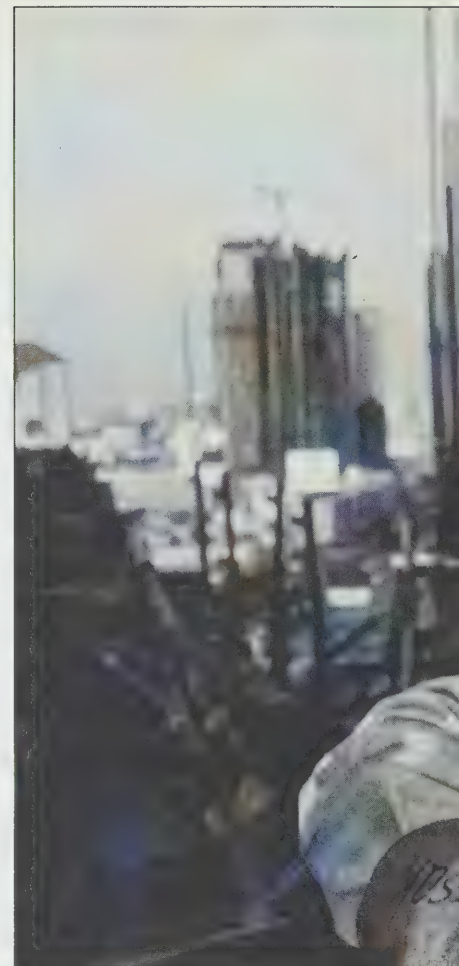
THE LEGACY OF THE INDUSTRIAL REVOLUTION

Sustainable development, say anthropologists, was the original human economy. For centuries, people and communities have lived this way intuitively, trying to strike a balance between needs and resources. In traditional societies, rights to hunt and fish certain areas were carefully controlled, and conserving stocks was a matter of common interest. Some have argued that pre-industrial people lived sustainably because they had to; if they did not, if they expanded their population beyond the available resource base, then sooner or later they starved or had to migrate.⁽²⁾

From a sustainable to an unsustainable world

The sustainability of our ancestors' way of life was supported by a particular consciousness regarding nature: the people were spiritually united to the animals and plants on which they lived; they were part of nature. Rights were carefully matched with duties. The era of this original sustainability eventually came to an end, with the development of trade and cities. A different consciousness, sustaining this new mode of life, emerged. The earth and its creatures came to be considered the property of humankind. In this world, humans emerged as the masters of nature, which they dominate and control. Breakthroughs in science and technology have strongly reinforced this view.

In today's world, this consciousness is embodied in two different forms: in the developing and the industrializing world, it is represented by the drive to develop at any environmental cost, including the creation of industrial areas that have become major centres of pollution. In the industrialized world, unsustainable development has generated wealth and comfort for about one-fifth of mankind at an especially high environmental cost. Implicit in both cases is the belief that natural systems are limitless and almost indefinitely tolerant — one of the strongest environmental myths.⁽²⁾





CIDA Photo: Roger Lemoyne, Thailand

has increased more than 100-fold in the last century.⁽³⁾ But, much of this spectacular growth was achieved at the expense of the environment.

Since the mid-18th century, human activities have increased the atmospheric content of carbon dioxide by 27 per cent, as a result of burning fossil fuels and clearing forests. Methane levels have doubled, while the concentration of ground-level ozone increased 22 times. The 20th century has magnified even more the destructive patterns initiated in the previous century. More people have been born, and more hectares of land have been cleared in the last 90 years than in all of previous human history. The consumption of natural resources, pollution and land abuse that has resulted from this post-industrial population boom has led to a continuing destruction of our planet, with global, regional, national and local consequences.⁽⁴⁾

AFFLUENCE AND WASTE

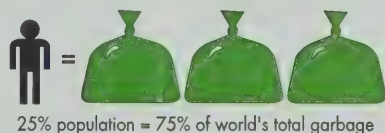
Rising numbers are often singled out as the major culprit in the mass environmental destruction encountered in most countries. The population problem, the argument goes on, focuses on the poor countries. Indian

laborers plowing marginal lands, African nomads overgrazing sensitive rangelands, or poor Latin American peasants slashing-and-burning their way through the forest are held accountable for much of the destruction. There is little doubt, as examined later on, that rapid population growth creates huge problems for poor countries, and seems to explain why most seem unable to escape poverty.

But crude numbers of people, or population density, represent only one side of the equation; the impact people have on the life-support systems and resources of the planet is just as significant. The one billion rich people of the world may have very low population rates, but their lifestyles are such that they may actually do more damage to the global environment than the 4.1 billion in developing countries.⁽⁵⁾ The problem is not only a question of sheer numbers, but also the reckless way in which people have treated this planet.

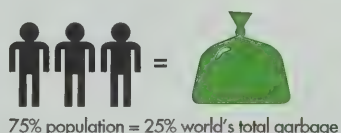
In this respect, it has been argued, industrialized nations have created a lethal situation for the entire world, by consuming a vastly disproportionate share of resources. With less than a quarter of the world's population, citizens of affluent nations consume some three-fourths of the earth's capital. These countries are overwhelmingly responsible for damage to the ozone layer, as well as roughly two-thirds of greenhouse gases. Their sustained demand is largely responsible for the world's extensive fisheries collapse. And their agricultural technology is ruining soils and draining supplies of

Developed nations

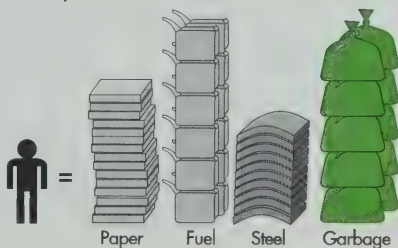


Developing nations

1989

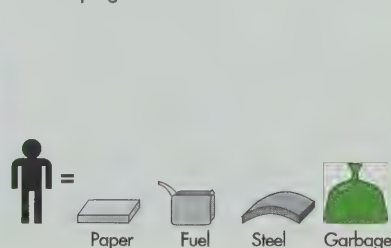


Developed nations



Developing nations

1989





underground water around the world. While in the developing world environmental destruction affects people, in the developed world, the by-products of affluence (acid rain, thinning of the ozone layer, buildup of greenhouse gases, toxic wastes) are endangering the whole planet.

Aristotle may have sensed it some 22 centuries ago when he declared that "the avarice of mankind is insatiable,"



CIDA Photo: Pierre St. Jacques, Brazil

launching a debate that has raged ever since among philosophers over how much greed there is in human hearts. A case at hand: in our affluent societies, there never seems to be enough; consumption is the rule, with everyone judging their status by who's ahead of them and who's behind.

Affluence has its price: garbage. With less than 25 per cent of the world's population, developed nations were responsible in the mid-'80s for 75 per cent of the world's 2.5 billion tonnes of waste.⁽⁶⁾ Several reasons account for so much waste. Reusable goods, for instance, have been replaced by throw-aways such as plastics, synthetic resins and fibres. Planned obsolescence guides production, and packaging is the essence of the product. As a result, it all ends up in the dump. Each year, Japanese consumers use 30 million disposable single-roll cameras, and Americans throw away 16 billion disposable diapers, 220 million tires, and enough aluminium to rebuild the entire U.S. commercial airline fleet every three months.⁽⁷⁾

On average, a typical resident of the industrialized world uses 15 times as much paper, 12 times as much fuel, 10 times as much steel, and generates about 10 times as much garbage as a resident of the developing world.⁽⁸⁾ Waste is no laughing matter: burning it releases dangerous gases into the air, dumping it in landfills contaminates water, pollutes farmland and threatens human health. Such is the price rich industrialized societies have to pay for their unsustainable lifestyles.

Of course, the other extreme — poverty — is no solution to environmental problems. Poverty and population growth among the destitute billion is damaging the environment in several ways.

POPULATION GROWTH, POVERTY AND THE ENVIRONMENT

The 20th century is experiencing the greatest revolution in human numbers the world has ever seen. From an historical perspective, world population has more than tripled in this century. Overall, the world's population, now 5.3 billion, is growing by about 180 per minute, one-quarter million every day. Numbers of such magnitude have no precedent in human history. Between 90 and 100 million people — roughly equivalent to the population of Eastern Europe or Central America — will be added every year during the 1990s.

One especially disturbing feature of this growth is that over 90 per cent of it will take place in those countries and regions least able to support it. Several developing countries will double or triple their populations over the next 50 to 60 years.

Of all things on earth, people are the most valuable asset. Yet, the momentum of population growth today, coupled with poverty and unfavorable economic conditions, has triggered destructive patterns: trees are being cut for fuel and food, grasslands overgrazed by livestock, and croplands overplowed by desperate farmers. During the 1990s, these pressures will reach critical levels.

On a local or national scale, there is considerable evidence that rising numbers are outstripping the capacity of a number of developing countries to provide for the well-being of its citizens. More people need more food, fuel, shelter, clothing and the other necessities of life. Such pressures deplete natural resources faster than they can be renewed, reducing productivity and, hence, undermining development.

Also in many countries, notably in Africa, rapid growth of population over the past two decades has been accompanied by a steady decline in standards of living, as measured in per capita incomes. It has also been matched by a decline in the quality of life, as measured by such indicators as per capita availability of food and nutrition, drinking water and sanitation. These facts raise difficult questions about the implications of continuing rapid population growth for the sustainability of natural resources and quality of life.

Poverty is another major offender. In most developing countries, environmental problems and poverty are often inseparable. The relationship of poverty to environmental decline was first captured by the late Prime Minister of India, Mrs. Indira Gandhi. Poverty, she explained, is the worst form of pollution, forcing villagers and slum dwellers to destroy the renewable resources on which their future depends. Indeed, much environmental degradation in poor countries is the result of the desperate search of the poor and the landless for such basic needs as food, water, fuel and fodder. Being by-passed by development processes, they have nowhere else to go but deeper into the forests and farther up the slopes to fragile, less productive soils. Hence, the phenomenon of marginal people in marginal environments. The results are soils being washed away, deserts spreading, genetic and wildlife resources in jeopardy, and scarce water resources. In their struggle for survival, poor people are destroying the resources they will need tomorrow in order to survive today. In the end, both the quantity and the quality of the natural resource base steadily



CIDA Photo: Bruce Paton, Nigeria

declines.⁽⁹⁾ And this environmental damage exacerbates poverty and population growth.

Thus, the projected growth of the population in the developing world is likely to be the dominant factor affecting virtually every aspect of human and social development, natural resource and environmental management, and economic progress over the next half century.

THE URBAN EXPLOSION

Sustained population growth also means the continued development of mega-cities, with rising pollution pressure on rivers and estuaries

and poorer air quality — hence, the urgent need to manage urban growth in a sustainable way. The maturing of youthful populations also means massive growth of the labor force and the need for jobs — again, particularly in urban areas.

A world of cities

The developing countries are facing an urbanization explosion never seen before in history. The numbers are staggering. In 1950, there were 285 million people living in cities of the Third World. By the end of this century, this figure will have swollen to about 2 billion people. Experts predict that by that time, the urban population

Cities: a blessing or a burden?

Because historically, the city has acted as an important growth pole of social and economic development, urbanization has usually been perceived as a blessing rather than a burden. Even in the developing world, urban areas act as engines of growth. Cities represent major consumer markets. They also process food and manufacture the inputs, the tools and equipment needed for agricultural production. Actually, cities and towns account for 60 per cent of the developing countries' GNP and for 80 per cent of its growth.

But growing urbanization also implies

enormous challenges and huge investment and maintenance requirements — all of which Third World cities can ill afford, particularly in terms of water supplies, waste disposal, transport, energy and housing, as well as provision of health and education. The swelling demands from urban dwellers further strain the environment and the ability of urban infrastructure to manage it: rivers, estuaries, and coastal zones are polluted by sewage; groundwater resources are threatened by uncontrolled dump sites. More often than not, the end-result translates into greater urban misery.

of developing countries will be almost double that of the developed... by the year 2025, it will be almost four times as large. Most of this growth will be the natural increase of populations already in the cities; the remainder will come from rural-urban migration. Nowhere will this explosion be more evident than in large cities. Over the next decade, the number of cities with over 5 million inhabitants is expected to reach 48, of which 37 will be in the developing countries. By then, all but three of the world's biggest cities will be in the Third World. To have an idea of what that means, based on global average, every day, a city of 10 million inhabitants consumes 6,250,000 tonnes of water, 20,000 tonnes of food, 95,000 tonnes of fuel, and generates 5 million tonnes of waste water, 20,000 tonnes of solid wastes and 9.4 tonnes of air pollutants!

Mega-cities of tomorrow

The problem of inadequate shelter is universal and can be found in both the developed and developing world. Worldwide, more than 1 billion people lack adequate shelter, but it is in the cities and towns of the developing countries where the shelter conditions are the most appalling. Most of the 70 cities in the Third World have sizeable squatter settlements and, in most, slum dwellers and squatters already make up 50 to 75 per cent of the urban population.⁽¹⁰⁾ But more importantly, slums and shantytowns are increasing at twice the rate of the cities themselves, and four times faster than world population growth. As a result, by the year 2000, experts predict that the close to 1 billion people in the developing world alone will be living in such colonies. The cities of the future may not be of brick, cement or glass, but of wood, tin, clapboard and clay.⁽¹¹⁾

In terms of urban growth, major regional differences exist. Latin America already has large urban areas, but the lowest rate of urban population growth. Asia comes next, although it has in real terms the largest number of urban dwellers. This trend is likely to

Some of the lessons learned

Over the last two decades, the urgency to find solutions to slums and squatter settlements has forced governments to adopt innovative urban planning strategies. One of the most important lessons learned from this experience is that most obstacles to the provision of shelter are man-made. Removing these barriers involves, first and foremost, giving the urban poor secure title to plots of land, however small these may be; second, enabling them to build whatever kind of housing they can afford, and leaving them free to improve these when their means permit; third, meeting their need for sanitation and safe drinking

water in an efficient way; and fourth, providing them with financial and technical assistance in building their homes.

Another important lesson that urban planners have learned is that shelter can be made available to the poor; instead of being a drag on the economy, investment in housing for low-income groups can become a powerful and sustained stimulus for economic growth. The pivotal role of construction in industrial countries is well known. In Canada and the U.S., the number of housing starts in any given period is an important indicator of the health of the economy.

persist, as nearly half the world's 55 largest cities projected for 2000 will be in Asia. Africa, especially East Africa, has the highest urban growth rate. Under the current rate of 5 per cent, Africa may expect to double its urban population every 14 years or so. In some East African countries, with rates of over 6.5 per cent, urban population could double within 10 years.

Prospects and opportunities

One of the main challenges of the '90s will be to regulate urban growth, so that it can be turned into an asset for development instead of a liability. In order to achieve this, several requirements must be fulfilled. The international community must strengthen its

capacity to assist developing countries in coping with urban development challenges and opportunities. Governments need to intervene through a variety of policy tools to promote secondary cities — which may absorb more of the inevitable urban growth — through tax and other financial incentives, and better transportation networks.⁽¹²⁾ Because shelter problems are largely the result of misguided economic and social schemes, new housing policies are urgently required. Appropriate public sector measures affecting land entitlement and land markets are of critical importance to unleash the potential of the private sector in providing housing finance. Equally as important is the need to involve, from the outset, local communities in housing projects.⁽¹³⁾



Urban growth rates are multiplying the challenges already facing Asia's newly industrialized nations.

CIDA Photo: Roger Lemoyne, Thailand

Part 3: Options and Solutions



SUSTAINABLE DEVELOPMENT — THE SOLUTION

There is a growing understanding among scientists, ecologists and even ordinary people that modern civilization — that is our current organization of society and modes of production and consumption — is just not sustainable.

Already our activities have degraded the soils of millions of hectares, and threaten to initiate, through the destruction of the rainforests, a mega-spasm of species extinction. All over the world, humans are mismanaging both the quantity and quality of water, and overexploiting ocean resources. Meanwhile, the greenhouse effect is building up and the ozone layer is being depleted.

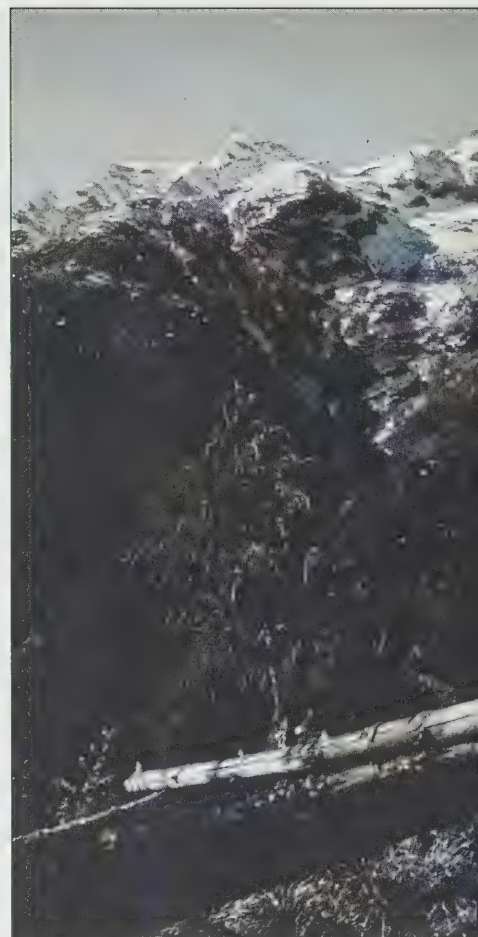
Yet, most experts agree that today's pressures on the planet's environment and resources are trivial compared to what they are likely to be 20 or 30 years from now. In the long run, it is obvious that all countries have a common vested interest in avoiding the destruction of the planet's life-support systems. Profound changes are required in the way countries, developed and developing, manage growth. In addition, there is a need to restructure the global economy; development initiatives will have to change significantly, and much greater international cooperation is urgently needed. Unless the desire to ensure a sustainable future becomes a priority for all — national governments, ordinary citizens and the world community — experts fear that the ongoing destruction of earth's biosphere may well overcome efforts to improve the human condition.⁽¹⁾

WHAT IS SUSTAINABLE DEVELOPMENT?

Specialists often use interchangeable terms like sustainable development, sustainable use and sustainability. Some have voiced criticism over the use of these terms because they are ambiguous and open to various interpretations. Indeed, what is sustainability? What is to be sustained? Economists might stress economic growth and consumption levels. Biologists might argue that it is the biosphere that needs to be preserved, especially Earth's bio-capital. Sociologists might stress demands on the environment that are culturally determined. Philosophers would include ethical considerations: what happens today carries implications for future generations. Despite their differences, however, most would agree that it requires the reduction and reversal of the ongoing processes of environmental degradation.⁽²⁾

FROM AN UNSUSTAINABLE TO A SUSTAINABLE WORLD

Concerned about present and future environmentally destructive trends, the United Nations



General Assembly established in 1984 an independent World Commission on Environment and Development — also known as the Brundtland Commission, from the name of its chair, Prime Minister of Norway, Gro Harlem Brundtland — to assess the extent of the damage, and propose new forms of cooperation that would break out of existing patterns and policies. In its report, entitled *Our Common Future* and published in 1987, the Commission called for sound and responsible management of the Earth's resources and the collective future of all its creatures. The Report contains a number of valuable elements, especially its documentation of the current state of various problems, and its recognition that major problems are closely interrelated. The environment and development crises, it points out, are intricately linked, and the solution can be found only by the common pursuit of sustainable development.



CIDA Photo: Pat Morrow, Nepal

A reforestation project in Nepal helps to recover degraded mountain slopes and prevents further erosion.

Few publications in recent times have had the impact on worldwide public opinion and political thinking that *Our Common Future* has achieved. It has been widely debated and commented upon, and well popularized throughout the world. As a result, environment and development issues have moved to centre stage in political and public debate. Already, national, economic, industrial and social policy changes are under way on a scale not seen before.

Overall, the Commission concluded that signs of stress were accompanied by some signs of hope. The members called upon all nations of the world to adopt the following principles to guide their policy actions:

Revive growth: Poverty is a major source of environmental degradation. Economic growth must be stimulated, while enhancing the resource base. Urgent action is needed to solve the debt issue and stimulate development assistance.

Change the quality of growth: Revived growth must be of another kind in which sustainability, equity, social justice and security are major social goals. A major element of this shift includes a safe, environmentally-sound energy pathway.

Conserve and enhance the resource base: Sustainability requires the conservation of natural resources — water, forests, soils, biodiversity and clean air. Priorities should focus on reducing per capita consumption of resources and a shift to non-polluting processes and technologies.

Ensure a sustainable level of population: Population policies should be formulated and integrated with other economic and social development programs — education, health care and rising standards of living, especially for the poor.

Reorient technology: Technological innovations are urgently needed in developing countries. Their orientation must also be changed to pay greater regard to

Defining sustainable development

Sustainable development has been the object in recent years of intense scrutiny. The World Commission on Environment and Development defines it as "development which meets the needs of the present without compromising the ability of future generations to meet their own needs." Similarly, for the FAO sustainable development is the management and conservation of the natural resource base, and the orientation of technological and institutional change in such a manner as to ensure the continued satisfaction of human needs for present and future generations.

Others have come up with more or less similar interpretations. For some, sustainable development is a pattern of social and structural economic transformations which optimizes economic and other societal benefits available in the present without jeopardizing the likely potential for similar benefits in the future. For others, sustainability is the ability to maintain productivity, whether of a field, farm or nation, in the face of stress and shock. Or it may be a type of development that maintains a particular level of income by conserving the sources of that income; the stock of produced and national capital.

Sources: *Our Common Future*, New York: Oxford University Press, 1987, p. 43; and *The 1989 State of Food and Agriculture*, FAO Agriculture Series, 22 (Rome, 1989): p. 66.

environmental factors and costs.

Integrate environment and economics: Decision-makers must be responsible for the impact their decisions have upon the environmental resource capital. They must focus on eliminating the sources of environmental damage rather than the symptoms.

Reform international economic relations: Major changes in market access, technology transfer and international finance are required to help developing countries widen their opportunities, by diversifying their economic and trade bases and building self-reliance.

Strengthen international cooperation: A high level of commitment is required by all countries and new dimensions of multilateral cooperation are essential to sustainable human progress.

OUR COMMON FUTURE: TRIBUTE AND CRITICISM

The Commission identified three important realities: first, it recognized that Earth's resources are in jeopardy as a direct result of current economic practices. Second, that major development and environmental problems are closely interrelated. Third, that ecological exhaustion will increasingly feed back on the economy, both national and international.

Tribute from the world's press was, to a large extent, unanimous. The Washington Post hailed the Report as "One of the most ambitious and unusual programs ever devised for halting the deterioration of the world environment." For the International Herald Tribune, "it is the first major international report on the global environment to deal with economic development as an essential ingredient for the salvation of the earth's biological support systems." The Globe and Mail quoted: "The Commission, with its focus on sustainable development, makes a pitch to the world's frequently disunited nations to clean their own houses and help clean each others' in their own self-interest. Nobody says it will be easy; just crucial." El Tiempo, one of Colombia's leading newspapers, sees it as an "ecological bible, a socio-political document that is both radical and definitive."

World leaders have also expressed similar views. For President Mugabe of Zimbabwe, "The Brundtland Report is like a breath of fresh air in a world polluted by poverty, hunger, disease, racism, industrial waste and the threat of nuclear annihilation." President Kaunda of Zambia sees it as "an astounding document of great historical importance." For Canada's former External Affairs Minister, the Right Honourable Joe Clark, "The Brundtland Commission has produced a blunt and clear report on the urgency of protecting our resources and environment." The United Kingdom's Ambassador to the UN, Sir Crispin Tickell, echoed, "The Brundtland Report is a comprehensive and balanced attempt to analyze one of the most important



CIDA Photo: Roger Lemoyne, Niger

Meeting basic human needs with appropriate technology is the first step toward the sustainable management of Earth.

problems facing the world today and points the way forward. Its basic message is one of hope, for it shows ways in which solutions can be found."

Critics, however, disagree. They contend that the report is grossly inadequate. Its call for more and faster economic growth, they say, is misleading. There is no discussion of the view that the growth strategy has, by and large, failed to overcome poverty, nor is there any hint that the rich countries, or their outrageous lifestyles, might be responsible for some of the world's worst environmental problems. The Report, they say, contains no suggestion as to the need for redistributing world wealth, or limits to growth.

PRINCIPLES OF SUSTAINABILITY

For both economic growth and environmental improvement, the key is to manage the earth's resources in a sustainable manner. But this calls for major changes in the ways in which the planet is managed. Two basic concepts underline, according to *Our Common Future*, the process of sustainable management: first, the basic needs of humanity (food, water, clothing, shelter) must be met. This involves paying attention to the largely unmet needs of the poor. Economic growth is

thus essential to create the wealth necessary to resolve environmental problems and to raise large parts of the world from poverty.⁽³⁾

Second, the limits to development are not absolute but are imposed by present states of technology and social organization. In other words, there are no limits to growth, because by adopting sustainable policies of growth and development, developing countries can move beyond their present survival levels to the kind of security and prosperity enjoyed by the populations of the rich countries, without further degradation of the global environment.

In concrete terms, sustainable development means helping developing countries invest in activities such as reforestation, agroforestry, water conservation, and energy efficiency. But the concept is much broader than the protection of natural resources. It also includes human development, and this means investing in education, family planning, primary health services and better sanitation for all. Reducing debt and other pressures that force developing countries to cash in their natural resources to earn foreign exchange must also be addressed.⁽⁴⁾ Another important condition for sustainable development is that environment and economics be merged in decision-making. Although economic and ecological systems are interlocked in the real

world, they remain apart in most of our institutions and activities. There is an urgent need for economic activity to account for the environmental costs of production, and to integrate environmental factors into the engineering of industrial products and processes.

In the end, sustainable development must translate into local actions if there is to be any impact at all. At this level, the first requirement is for people to have access to information supportive of sustainable development objectives. A second priority is the transfer of technologies for sustainable development. For example, techniques for the restoration of environments degraded by salinization, acidification and mining are well known, and have been used successfully for some time. A third condition involves the coordination of activities at the national and international level. All these requirements represent critical shifts. Can modern economies adapt to such major changes? Yes, say experts, as long as changes in societal values and goals, incentives and the decision-making process are introduced. International institutions must do their part, but so must governments and people. Such a shift will also require a desire and an ability from all societies to reflect continually on the values and objectives that guide their efforts.⁽⁵⁾

ELEMENTS OF A STRATEGY FOR A SUSTAINABLE WORLD

Establishing a sustainable relationship between people, resources, environment and development hinges upon several commitments such as:

- Tackling poverty and the debt issue
- Planning the human family
- Investing in people
- Achieving food security and preserving soils and forests
- Caring for biodiversity, water and oceans
- Making sound energy choices.

The following sections explore and sum up some of the policy changes needed to put the world on the path of sustainable development.

Tackling poverty and the debt issue

Much of the destruction and pressure on the environment in developing nations results from poverty, individual and national. The bad news is that poverty is increasing. Since 1980, things have gone from bad to worse for many Third World countries, especially for those in Africa: economic development has slowed down, real wages have dropped, unemployment has increased and social services have been rolled back. Studies from the International Food Policy Research Institute show that between 700 million and 1 billion people remain trapped in the poverty cycle. Over half the world's poor live in the populous regions of South Asia, East Asia and Indo-China. Poverty is also extensive in sub-Saharan Africa where about 280 million people live on threshold subsistence. Most studies agree that significant poverty reduction cannot occur without sustained economic growth.

The Brundtland Commission echoed this view when it suggested that a five-fold to ten-fold increase in economic activity would be required over the next 50 years in order to meet the needs and aspirations of a burgeoning world population as well as to begin to reduce mass poverty. Known as the 'growth imperative,' it is

expected to translate into a colossal burden on the ecosphere. Yet, there are very few other alternatives. Unless poverty is significantly reduced, say experts, there really is no way to halt the decline of earth's basic capital: its forests, soils, species, fisheries, waters and atmosphere.⁽⁶⁾ Because a bankrupt environment leads to a ruined economy, this environmental damage would only reinforce poverty.

The debt problem remains a major obstacle to economic and environmental improvements in developing countries, particularly those in Africa and Latin America. Unless such a difficult issue is resolved, those countries can hardly expect to focus on the pressing agenda of poverty and ecological decline.

The total debt of over 100 developing countries was \$1.3 trillion in 1989, with the interest payments amounting to \$43 billion a year.⁽⁷⁾ Many Latin American and African countries are in arrears or have stopped repayments, largely because their economies are being caught in a vicious circle: squeezed between falling prices for their primary export products — raw materials and crops — on the one hand, and declining financial assistance on the other.

Indeed, reduced earnings from commodity exports explain, to a large extent, why many developing countries are unable to finance their debts.



CIDA Photo: Patricia Baeza, Ecuador

Access and unmet needs in family planning

Today, virtually all Third World countries are committed to limiting population growth. But the degree of political and economic support that family planning programs enjoy varies widely. More vigorous efforts are required, especially in Africa and South Asia. One measure of unmet need is the percentage of couples who would practice family planning, if the means were available. In a majority of countries, 75 per cent of women surveyed said they did not want another child now or within a year. Yet the proportion of those who are not using family planning varies greatly. In most Asian countries surveyed it was between one-third and one-half; in Latin America and the Caribbean,

between one-third and two-thirds; and in Africa, over 90 per cent in most countries. Unmet need is consistently greater in rural than in urban areas.

To supply these unmet needs would require \$2 billion to \$4 billion more each year, on top of the \$3 billion currently spent on birth control measures; but it would go a long way to stabilizing world population at an earlier and lower level. In real terms, such an investment would be no more than the equivalent of a day's military spending worldwide.

Sources: CIDA, *Development*, Population Research Review, 1989, p. 29; and N. Myers, "People and Environment," *People*, 17, 1 (1990): p. 4.

Commodity prices peaked in the mid-1970s and have been falling ever since. Cocoa, tea, rice and sugar prices have tumbled to less than half their 1977 level.⁽⁸⁾ Minerals, jute and rubber have dropped by about 30 per cent.⁽⁹⁾ In addition, the flow of money from rich to poor countries has been reversed. In other words, more money comes out of the Third World than goes in. Ten

years ago, a net \$40 billion flowed from the rich countries to the developing nations. Today, taking into account loans, aid, repayments of interest and capital, the poor countries are transferring as much as \$60 billion and the figure keeps increasing.⁽¹⁰⁾

Such massive transfers could only be achieved by rolling back their own levels of consumption and growth, and by exploiting their limited resource capital. In the 37 poorest countries, spending per head on schools has fallen by about 25 per cent. Health spending per person has declined in more than three-quarters of African and Latin American nations.⁽¹¹⁾

Clearly, the Third World's debt payments will have to be lightened or postponed. As first priority, the decline in social spending must be stopped, through debt relief measures and, in many cases, greater assistance. The best way of doing that seems to be using debt relief as leverage for winning environmental concessions. In exchange for foreign funds, the developing nations would agree to curb deforestation and adopt other responsible environmental policies.

Lessons in population

Countries that have been able to control rapid population growth typically have three things in common: an active national population education program backed by a firm government commitment, widely accessible family planning services, and

widespread improvements in standards of living — especially those affecting the education and lives of women and children.

Sources: L.R. Brown, "A Global Action Plan," *People*, 17, 1: p. 38; and CIDA, *Development*, Population Research Review, 1989, p. 28.

Planning the human family

Growing numbers of people are exerting serious pressures on the environment by chopping down forests, overgrazing grasslands and overplowing croplands in a desperate effort to feed a growing number of people. Policies to bring down fertility rates could make a difference of billions to the global population next century. It would also help broaden the options for future generations. What needs to be done? The answer is surprisingly simple. Indeed, if there is a single key to population control in developing countries, experts agree, it lies in improving the social status and lives of women. Better and more widespread female education improves women's status, mother and child health, and family planning use.⁽¹²⁾

"If you educate a man, you educate an individual. If you educate a woman, you educate the whole family."

— Mahatma Gandhi

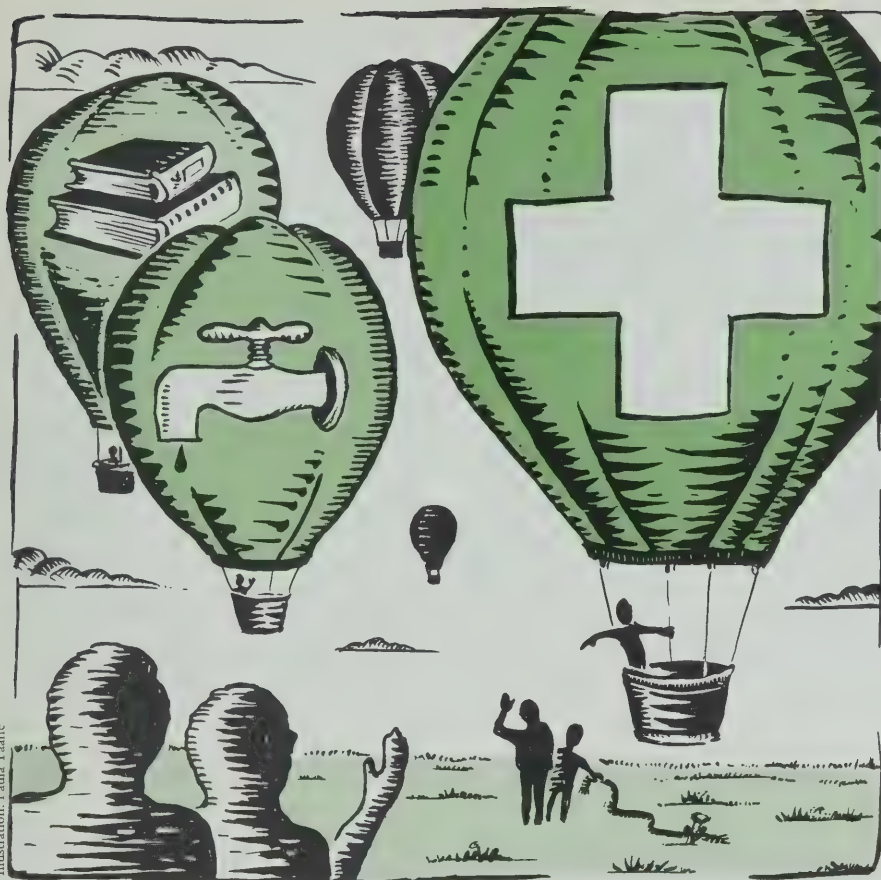
In practice, this means redirecting development assistance in favor of initiatives which directly benefit women, such as education, health, family planning and employment opportunities. In order to secure progress in family planning, new forms of birth control are desperately needed, and a few are slowly appearing. Ultimately, slowing the population growth rate will depend on the ability of family-planning experts to create specific programs for different societies, and even for different segments of societies.

Investing in people

Investing in people is critical to development and is one of the central lessons of the experience of successful nations. It has been proven, over and over again, that people's creativity can be turned into an asset. Investments in human resources, through better education, health, family planning and greater opportunities for women, improve the quality of life of all and provide for rapid economic development. It can also reduce significantly the environmental crisis. In fact, there is no other sphere of development, say experts, where investment can make



CIDA Photo: David Barbour, Mexico



such a major change, both in the present and the future.⁽¹³⁾

Recent research studies confirm that returns on human development can indeed be high. Returns to primary education reach 43 per cent in Africa, 31 per cent in Asia and 32 per cent in Latin America. Social returns from female literacy are even higher — in terms of reduced fertility, reduced infant mortality, lower school dropout rates, improved family nutrition and lower population growth.⁽¹⁴⁾

Achieving food security and preserving soils and forests

Food security: the big question mark

So far, in global terms, the struggle to keep food production ahead of population growth has been won, but the fight is far from over. According to experts, world agriculture will need to increase output by at least 40 per cent by the end of this century just to keep

pace with population growth. At the local level, negative trends have appeared in recent years. The FAO reports that per capita food production in the first part of the '80s has been declining in a majority of countries, as a result of rapid population growth. The hardest-hit region is Africa, where out of 43 countries, 25 experienced a drop in per capita cereal production. But Latin America's performance was no better, with 17 countries out of 23 experiencing a setback.⁽¹⁵⁾ These deficits have so far been met by matching surpluses in the industrialized countries. But trends concerning imports are worrisome. Cereal imports by developing countries reached 20 million tonnes in 1970. By 1985, they had risen to 69 million tonnes and are expected to total 112 million tonnes by the end of the century.⁽¹⁶⁾

The transition to sustainable agriculture requires concerted action by all (governments, international agencies, non-governmental organizations, communities and individuals) in favor of agricultural research and farm support

services, better prices for food crops, and rehabilitation of degraded land. It also requires promoting sound agricultural practices, better water and irrigation management, and alternative fuels.

There is really no other sustainable alternative. Imagine, says Worldwatch Institute, trying to meet the food needs of eight billion people — nearly three billion more than the current population — with 960 billion fewer tonnes of topsoil and one billion fewer trees. That, in essence, will be the dilemma faced by society if current rates of soil erosion and deforestation continue unabated for the next 40 years.⁽¹⁷⁾

Protecting forests

The world's forests, as seen in Chapter Three, are in bad shape. Yet, many tropical countries, plagued by debt, weak economies, and having to cope with burgeoning populations, see few alternatives to clearing forests as ways to earn quick foreign exchange, to spur regional development, or to open new areas of settlement.

Only vigorous efforts to preserve the remaining forests, and to plant billions more trees each year, can reverse these worrisome trends. According to experts, trees need to be planted on the equivalent of 130 million hectares in order to meet growing needs for fuelwood and wood products, and to protect the land from soil erosion. Reaching this goal over the next 15 years would require planting some 15 billion trees annually. Besides helping meet basic economic and environmental needs, such an extraordinary reforestation effort is critical to a global strategy to slow climate change.⁽¹⁸⁾

Caring for biodiversity and water resources

Clearing land for agriculture has accelerated the rate of habitat loss and species extinction to levels not seen on earth for 60 million years. According to careful estimates, the world is losing 100 species per day. Can steps be taken to slow this rate to sustainable levels? The answer, according to some experts,



is a guarded yes. Conservation, they say, must be coupled with economic development, especially in poor countries facing rapid population growth. Linking conservation and development through the introduction of 'national conservation strategies' in countries which lack them is a first step.

Development need not be viewed as incompatible with the preservation of genetic and species diversity. In Brazil, for instance, recent studies indicate that more income can be secured from harvesting natural forest products than from clear-cutting for timber and agriculture.⁽¹⁹⁾ Overall, one million people in the Amazon earn their living through small-scale farming, hunting, fishing, rubber tapping and nut gathering. Not only are these activities eco-

nomically justified, they also protect genetic resources and provide the indigenous people of the rainforest with a sustainable way of life.⁽²⁰⁾

Several organizations have proposed innovative strategies to cope with the spasm of extinction. In 1988, *Our Common Future* recommended the creation of an International Species Convention modelled along the lines of the Law of the Sea Convention. More recently, one of the boldest schemes has been submitted by IUCN — The World Conservation Union — along with The World Wildlife Fund for Nature and the United Nations Environment Programme. This strategy, known as Caring for the Earth drafted in 1991, stresses the essential interactions and linkages between ecological and human needs. There is little doubt that initiatives are urgently required, for, despite some efforts, the actions taken by governments and the international community to promote conservation and sustainable use of biological diversity have been largely inadequate.⁽²¹⁾

Global supplies of water are huge, but they are unevenly distributed and many countries face water shortages. Globally, perhaps two billion people live in areas suffering from chronic water shortages. Most of Africa, much of the Middle East and northern Asia, the western United States and north-western Mexico, parts of Chile and

Argentina, and nearly all of Australia are areas of severe water deficits. Future prospects are alarming. Population growth alone will double water demand in at least half the countries of the world by the end of the century.

But water crises can be limited if careful planning and sound management lead the way. Sound management practices are well known. Most of them rely on an integrated approach. Socio-economic objectives and environmental concerns are coordinated so that each sector — from human settlements, to industry and energy production, to agriculture, fisheries and wildlife — receives its share. Within such a framework, the emphasis is on increasing the efficiency of water use rather than on supply. Other elements include a better awareness by all, governments and citizens, increased international cooperation and greater involvement of communities in managing water resources. Predicting what is likely to happen if sound principles of water management are not vigorously implemented is all too easy. Cases abound of lakes and rivers that have become sewers, inhospitable to aquatic life. A lack of management efforts would spell more of the same... on a much grander scale.⁽²²⁾

Making sound energy choices

Energy plays a crucial role in our lives. It cooks our meals, warms our houses, fuels our industries, and powers our cars, trucks, trains and planes. In fact, affluence enjoyed by rich countries rests largely on energy access: one fifth of the world's population consumes more than 70 per cent of the world's commercial energy.

But energy is also a major culprit. Every year, energy use dumps more than 6.5 billion tonnes of carbon into the atmosphere, amounting to about 1.3 tonnes of carbon for every man, woman and child on this planet. Our insatiable need for fossil fuels (coal, oil, natural gas) has created air pollution and acid rain, and is about to lead to the greatest global climate change this



The world's sources of energy

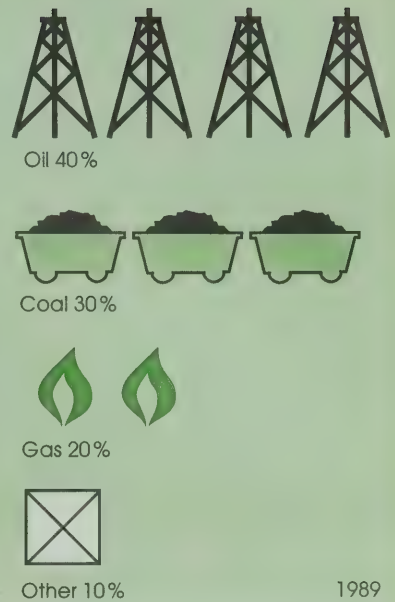
Oil, coal and gas remain the big three in terms of world commercial energy production and consumption. Oil dominates energy markets. In 1988, it accounted for about 40 per cent of world energy, while coal's share was 30 per cent and gas 20 per cent. Because of huge supplies and low prices, coal consumption is likely to increase by 40 per cent by the year 2000. Developing countries are expected to experience the fastest growth and may soon consume as much coal as Western Europe. Unfortunately, coal is a dirty fuel: mining it ravages the land, burning it generates large amounts of pollutants.

Hydro-power provides almost 7 per cent of global energy. Its potential remains largely untapped, mainly because such power plants require large investments and carry environmental costs. Small-scale hydroelectric power may prove to be a valuable energy source in developing nations. Nuclear power is significant only in the developed world, accounting for 65

per cent of France's electricity, 42 per cent in Sweden, 31 per cent in West Germany, 23 per cent in Japan. The problems associated with nuclear power include the risk of accidental contamination and the safe handling and disposal of radioactive wastes.

Renewable energy sources — solar, geothermal and windpower — already make sizeable contributions in some countries, generating up to 5 per cent of total energy in Australia, Austria, Canada, Denmark and Sweden. A number of developing countries have also expanded renewable energy production in recent years in order to tap their indigenous energy supplies. Still, according to some experts, current economic and technical constraints will likely postpone a major global buildup of renewable energy production until sometime in the next century.

Source: World Resources Institute, *World Resources 1990-1991*, New York: Oxford University Press, 1990, p. 141-145.



planet has known in millions of years.

Given the needs of industrialization and rapid population growth, energy demands in the developing world will increase dramatically in the coming decades. According to present trends in energy consumption, the developing world's per capita commercial energy demand in 2020 will be more than four times the level of 1980. With some help from the industrialized world, however, Third World countries could apply technical solutions that would promote economic growth while keeping energy-demand growth relatively low.⁽²³⁾

What, if anything, can be done to forestall or at least slow the world's insatiable appetite for energy? A shift to energy conservation and efficiency, cleaner technologies, and the development of new and renewable sources

could make a world of difference.

Raising energy conservation and efficiency, in both developed and developing countries, stands as perhaps the most promising option to counteract the various risks associated with current global energy use. Studies have shown that the energy consumption per unit of output from the most efficient processes and technologies is one third to less than one half that of typically available equipment.

Savings and growth

Increasing the energy and resource efficiency of industrial plants or communities adds up to greater competitiveness on world markets. From 1973 to 1985, rich industrialized countries have collectively reduced their energy intensity — that is, the amount of energy used to produce a unit of gross domestic product — by a hefty 20 per cent.⁽²⁴⁾ Some countries, like Sweden and West Germany, fared even better. Japan led the way with a 35 to 40 per cent drop in energy intensity. Greater energy efficiency in the developing world would buy time to develop renewable energy sources, such as solar and wind power, mini-hydropower, as well as substitutes for fuelwood.

The real energy crisis

For most people, the real energy crisis is a shortage of fuelwood. Overall, some 2.5 billion people worldwide depend on fuelwood, crop residues and dung for basic energy needs. Although most subsist at a low consumption standard, wood is becoming scarce, and overcutting has ravaged the environment. Some countries have made some progress in developing biogas, but the potential remains largely untapped.

Saving energy

Much can be gained from energy conservation and greater efficiency. There are literally thousands of different devices that can improve energy efficiency in residential and commercial buildings, industry, transportation, and the electric utility sector. Experts agree that most of these improvements can be implemented much more economically than new energy supplies can be developed. Houses and buildings can be equipped with more efficient lighting, appliances, and heating and cooling systems. New construction materials can also sharply reduce energy losses through windows, doors and walls. In industry, significant savings can be realized by using more efficient electric motors, new sensors and control devices. Transportation has become the largest drain on the world's oil supplies. But technical potential exists to push fuel economy in cars to over 3.7 litres / 100 km.

Utility companies can play a major role in improving the efficiency of electrical generation. A 1985 survey by the world's largest power utility, the Companhia Energetica de Sao Paulo in Brazil, estimated that a \$2 billion investment in energy efficiency would counter the need for 22 billion watts of generating capacity at the cost of at least \$44 billion by the year 2000!

PROBING THE 21ST CENTURY

"Through its action, or inaction, the world shall determine the planet's future more thoroughly than has been the case for any generation in the past."

British biologist Norman Myers.

AGENDA FOR THE 1990s

The world stands at the dawn of a new era, claim futurologists. Some even contend that the world is living the most important decade of this century, a period that will yield stunning technological breakthroughs and surprising shifts in political and military alliances. It is already amplifying emotions, they say, accelerating change, heightening awareness and compelling people to revise their values and institutions.⁽¹⁾

Although this interpretation is not shared by all, most agree that the next few years will be a crucial turning point. In this sense, the 1990s may prove to be the most decisive decade in humankind's history. Of course, each generation has claimed that, but this time there is ample evidence that it is for real.

What makes the 1990s so special? Several reasons in fact account for its importance; however, none is more important than the fact that this decade is likely to provide the world with a final window of opportunity,

before points of no return are reached. A lot of experts still believe it is possible to choose the future for our planet. The preconditions are already in place, they say. The cold war has receded, exposing environmental degradation and poverty as the world's great destabilizing threats. Science and technology can yield solutions to many of these problems. Reductions in military spending can increase available resources. Public and private organizations and institutions provide the mechanisms for taking action. And these positive developments find support in what seems to be a worldwide genuine public concern for the environment.

This rather optimistic outlook comes also with some warning. Decisions and key processes must be set in motion as soon as possible. If major national and international efforts are not pursued in this period, most experts say, irreparable damage will be done to the world's environment, and the problems will prove increasingly unmanageable, expensive and dominated by crises.⁽²⁾



PREDICTING THE FUTURE

What are the trends most likely to shape the next century? Foretelling the future is a risky business. Yet, despite uncertainties, experts say they now have a good understanding of some of the factors most likely to shape our future.

The planetary picture of the 21st century that emerges from various attempts at probing the future is one with a human population that has more than doubled and with food supplies at odds with population distribution. By the middle of the next century, the climate should be substantially warmer than it has ever been in history. Possible consequences of global warming include changes in rainfall patterns, rising sea levels, and an increase in the



CIDA Photo: Roger Lemoyne, Thailand

number of hurricanes. Countries and regions will face acute water problems, a mega-spasm of species extinction, a drastic increase in the number of old people, burgeoning cities, armies of unemployed, and vast tracts of ruined lands.⁽³⁾ These new concerns present us with challenges that are more global in scope than anything the world has experienced in the past.

"If present trends continue, the world in 2000 will be more crowded, more polluted, less stable ecologically and more vulnerable to disruption than the world we live in now.... For hundreds of millions of the desperately poor, the outlook for food and other necessities of life will be no better. For some it may even be worse. Barring revolutionary advances in technology, life for most people on earth will be more precarious in 2000 than it is now."⁽⁴⁾

Already, environmental refugees can be found in many countries of Africa, Asia, Central America and the Caribbean, including Haiti, the African Sahel, Ethiopia and El Salvador. Experts point to much of sub-Saharan Africa, Andes, the Caribbean and the Himalayas as areas on the verge of ecological collapse, moving rapidly into a downward environmental spiral.

OPTIONS AND SOLUTIONS

But these predictions need not be true. Positive changes can reverse those trends. A few years ago, no one could have foreseen the depth and pace of change that swept the Commonwealth of Independent States and Eastern Europe. Similarly, the

world is not condemned to unsustainable development: individuals, communities, nations and regional groupings have shown throughout history that profound changes in values and behavior can take place on a massive scale.⁽⁵⁾

Signs of hope confirm that there is at least as much reason for hope as there is for despair. Overall, national policies are changing, steps are being taken to address some of the critical issues, and a majority of international institutions have adopted sustainable development as their goal. Most importantly, all around the world, people are pushing environment issues onto the political agenda.

As a result, progress has been made on the question of clean air, and action has been taken to reduce the depletion of the ozone layer. International conventions now regulate the dumping of toxic waste, long-range transboundary air pollution, and the management of oceans and regional seas. International cooperation has also progressed on other fronts: national programs launched under the International Drinking Water Supply and Sanitation Decade, and Health for All by 2000 have led to substantial improvements. Such international cooperation can extend into many areas of industrial management, especially since industry is increasingly willing to assume environmental responsibilities.



CIDA Photo: Virginia Boyd, Indonesia

Sound urban management will help cities become assets to development rather than liabilities.

Attempting to preserve the tropical forests

Local and international efforts are being made to protect what remains of the tropical forests. One such effort resides in the International Tropical Timber Agreement, ratified in 1985. This agreement aims at promoting international trade in industrial wood and sound management of tropical forests. It does so by assisting producing countries to develop better techniques for reforestation and forest management, and supporting research and development in these areas. One of the innovative features of ITTO is that producing and consuming countries work closely together towards sustainable management of tropical forests.

Source: World Resources Institute, *World Resources 1990-1991: A Guide to the Global Environment*, p. 108-09.

Moreover, solutions are at hand. Considerable success can be achieved now by implementing already developed strategies. There is an Action Plan for Tropical Forests, another to stop the spread of deserts, yet another to manage ocean resources sustainably. Others tackle the difficult issues of population growth, scarce resources and biodiversity, and climate change. Options and potential solutions seem to exist for about every environmental woe.

Technology can also be of great assistance in dealing with these issues. Already, some of the technologies that form the basis of ecologically sustainable development exist. Great strides can be achieved in land and forest productivity at extremely low capital costs, through soil and water conservation techniques, agro-forestry, multiple cropping and organic fertilization. Technologies for the restoration of environments degraded by salinization and acidification have also been developed for some time and have proven most successful on a regional scale. Techniques for the sound management of water resources have been used with considerable success. The real challenge may reside, in fact, in adapting technological innovations to the specific local conditions encountered in various environmental hot spots around the world.⁽⁶⁾

Some solutions are relatively inex-

Listening to the true caretakers

One of the most promising signs of hope coming from the Third World is the birth of modern and active grassroots environmental movements. In all three tropical regions (Asia, Africa and Latin America) people are coming together with solutions to preserve their environment. Forest dwellers, for instance, united recently to demand changes in the treatment of their homelands. In Brazil, the rubber tappers, now formed into a union which is gaining political clout, are fighting back those that try, even by violence, to evict them from lands they have occupied since the early 1900s. In Sarawak, Malaysia, members of native communities have set up blockades to keep loggers from cutting vast tracts of forests over which they assert ancestral rights. Like

the rubber tappers, the blockaders are seeking an end to forest clearing.

Local organizations have also developed innovative alternatives. In India, a community group called Development Alternatives has been making bio-gas and portable metal cooking stoves. Its investments in the research and development of appropriate technologies now amount to \$1.2 million. In Kenya, women joined forces in search of a different kind of social justice. To reduce the burden on women, who are responsible for wood gathering, the Green Belt movement was launched in 1977. Green Belt has planted nearly 5 million trees in small wood lots across Kenya and has established over 500 community nurseries.

THE COSTS OF ACTION VERSUS INACTION

Because environmental problems are complex and require multi-faceted solutions, putting the world on the path of sustainable development will not be easy, nor will it come cheap. There is an urgent need to change values, attitudes and behavior, to increase popular support and political leadership, to strengthen development initiatives, and to restructure the global economy. As far as costs are concerned, major environmental organizations and research institutes have attempted, in recent years, to gauge the unmet conservation needs in developing countries. In most cases, these estimates include the capital needed to launch recovery programs, the labor to implement them, the scientific know-how as well as measures of community participation. Although no one knows exactly what the actual cost will be, the toll is likely to be high. Recovery programs are always expensive and require large initial outlays. Between 1985 and 1987, for example, the FAO spent \$289 million on degraded African agricultural lands. The organization believes even larger amounts will be required over the next few years. For Colombia, Ethiopia, India, Indonesia, Kenya, Madagascar, Nepal, Pakistan,

pensive. Energy-efficient cookstoves save precious fuelwood; family planning programs reduce population pressures and improve the quality of life, and, in many instances, close collaboration with developing countries helps them become self-sufficient.⁽⁷⁾ All these things and more can be accomplished with means within our grasp. In short, leadership and bold initiatives can make a world of difference.

Other solutions, such as energy-efficient and waste-reducing processes involve a new way of doing things. Changes in lifestyles fall into this category. This may require small changes as well as big ones — from individual changes to major public investments in energy production and efficiency.

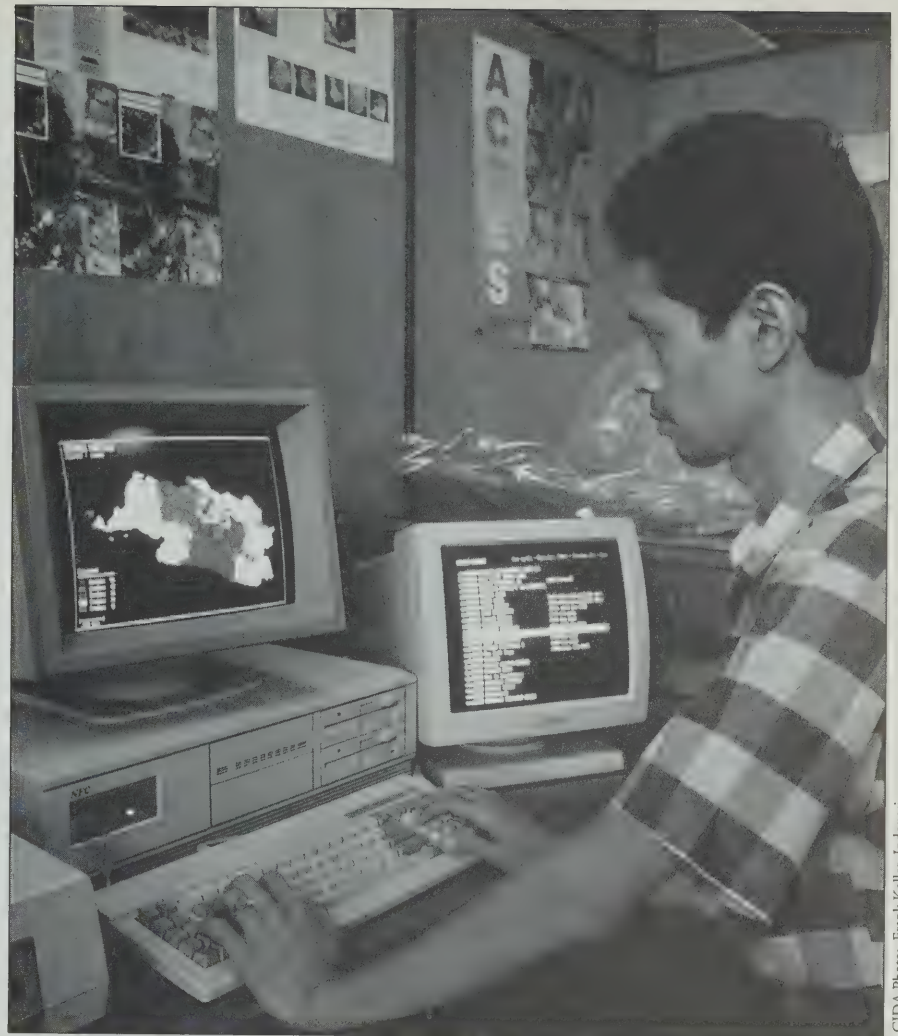
Even more important than technology is the popular support and political will required to enact such drastic changes. Let there be no illusions, say experts. Reversing the trends to earth's massive destruction will require a mobilization of political will and sacrifice unknown except in wartime. In addition, there is a need for a quantum leap in international cooperation. Success also hinges on a concerted effort to change many current policies, to strengthen and multiply successful programs, and to launch bold initiatives. The sum of these measures may amount to as big a change as the Industrial Revolution which has caused it.

Philippines and Zimbabwe, the total cost of recovery for upland watersheds and semi-arid lowlands has been estimated at over \$1 billion for the years between 1987 and 1991.⁽⁸⁾

Overall, the UN Environment Programme estimates that developing countries will need from \$20 to \$50 billion each year of the 1990s to meet the environmental portion of their sustainable development programs.⁽⁹⁾ Others have come up with higher figures. According to an estimate by the Worldwatch Institute, the global community would have to invest about \$775 billion in the next nine years to turn around adverse trends in four priority areas: protecting topsoil from further erosion, reforesting the earth, raising energy efficiency and developing renewable sources of energy, and cancelling Third World debt. This sum is equivalent to just under 10 per cent of annual world military spending.⁽¹⁰⁾

Caring for the Earth is IUCN's — The World Conservation Union — bold strategy for a sustainable world. It calls for action on many fronts and points out what individuals, businesses and NGOs can do toward that end. The sum required to carry on this strategy is estimated at \$47 billion in 1991, rising to \$161 billion in 1992. The total for the decade would amount to about \$1.28 trillion.⁽¹¹⁾

These strategies are careful to point out that much of this expenditure will lead to savings, or will provide a sufficient return to justify the investment. For example, family planning services will reduce population pressures and health costs; increasing energy conser-



CIDA Photo: Frank Koller, Indonesia

Used here for topographical mapping, computer technology enables us to record and better understand our environment.

vation and efficiency is sound business and recycling waste is profitable. Investments in conservation, like investments in health, family planning and education have long-term benefits.

As people are beginning to realize, attempting such a recovery is necessarily expensive, but the costs of doing nothing are much higher, as past experiences confirm. For instance, the cost of cutting in half sulphur dioxide and nitrogen oxide emissions in the U.S. has been estimated at \$6

billion a year. But corrosion damage alone caused by acidification is already estimated at \$7 billion a year in 17 eastern States. In Europe, the cost of reducing sulphur emissions by 55 to 65 per cent is estimated at up to \$6.5 billion a year. In comparison, losses in materials and fisheries, and damage to crops, forests and human health is costing \$10 billion a year.⁽¹²⁾ In 1980, the UN estimated that the annual losses in agricultural productivity from desertification alone amounted to about six times what its plan to fight desertification would have cost annually to implement. And the \$26 billion figure does not even begin to reckon indirect costs or the social and human costs of severe environmental degradation — famine, disease, civil unrest and massive dislocation.⁽¹³⁾

Cost of action vs inaction (\$US billions)





Harvesting rubber in Malaysia.

FINANCING SUSTAINABLE DEVELOPMENT

How are we going to pay for the clean-up of a world-wide mess? For one thing, industrialized countries are expected to meet all of their own environmental investment needs. Middle-income countries that are not highly indebted should be able to meet a substantial proportion of them. Low-income and highly indebted countries will need considerable assistance to stop erosion, educate people, reforest the earth, stop desertification, create new jobs, develop renewable energy and provide family planning to all who want it.⁽¹⁴⁾

In addition to current sources such as domestic investment and official development assistance (ODA), funding for these environmental investments could come from a variety of schemes. A range of interesting ideas are now being discussed although some will require further study before their practicality can be proven. These include: a carbon emission tax, an international environmental levy, increased private sector investment as well as possible transfers from military budgets.

Debt-for-Nature Swaps — One of the latest conservation financing instruments, debt-for-nature swaps have evolved in response to the environment and debt crises in the developing world. In such a swap, an indebted country exchanges foreign debt for a newly-created obligation, on which payments in domestic currency

are used to fund an agreed conservation program. Five countries have participated so far: Bolivia, Costa Rica, Ecuador, the Philippines, and Madagascar. The swaps so far have reduced external debt by almost \$100 million, which is but a small dent in developing countries' total debt of \$1.3 trillion. But the proposal has considerable potential.⁽¹⁵⁾

Carbon Emission Tax — Proposals for such taxes rest on the principle that the polluter should pay. They include a global carbon surcharge, and coordinated national taxes on fossil fuels. Tax rates of 10 per cent on coal, and lesser rates on other fuels in proportion to their carbon dioxide release rates, would yield revenues of more than \$25 billion a year. However, such taxes are unpopular and controversial, and their application is subject to fairness and scrutiny.⁽¹⁶⁾ According to another scheme, if a tax of \$50 per tonne of carbon were levied worldwide, the total revenues would amount to \$289 billion a year. Such a tax would raise the price of gasoline to consumers by 4 cents a litre and the electricity bill by 28 per cent. But it would also provoke, say its advocates, a surge in efficiency investments similar to the one that led to enormous economic benefits over the last decade.⁽¹⁷⁾

The real cost of the arms race



CIDA Photo: David Barbour

The real cost is lost opportunities: one minute and a half of the world's military expenditures would be enough to fund the UN Environment Programme's budget for combatting pollution in the oceans. Five minutes would cover the cost of protecting endangered species from illegal trade. Half a day of expenditures on military budgets would take care of the Action

Plan for Tropical Forests, budgeted at \$1.3 billion a year. Two days would release the resources to implement the UN plan to combat desertification evaluated at \$4.5 billion a year. Funding the UN Water and Sanitation Decade in the '80s would have cost \$30 billion a year or the equivalent of 10 days of military spending. Meanwhile, the war in the Persian Gulf, according to the Pentagon, cost the U.S. budget between \$500 million to \$1 billion a day! If such investments can be made in the name of war, surely pulling the resources required to put the world on a sustainable path should not be a problem, provided there is a will to do it. Sources: *GAIA Peace Atlas*, 1988; J. MacNeill, "The Greening of World Politics," *International Journal*, XLV, 1 (1989-1990).

An International Environmental Levy — This would involve a contribution from all countries based on the percentage of GNP. It has been estimated that some \$18 billion a year could be raised by a levy of 0.1 per cent of GNP. However, problems of compliance and participation would be as great as for emissions taxes.

Levies on Trade — Some have come up with bold schemes. Such an example is the proposal to levy a one-per-thousand tax on currency markets. Such transactions reach \$500 billion daily. Of these, 80 per cent are purely speculative in nature. Most are carried through the London, New York and Tokyo stock exchanges. Such a tax could totally reimburse Third World debt in ten years at the most, interest included.⁽¹⁸⁾

Private Sector Investment — Ecological investment is designed to generate private investments in conservation. The service would be similar to that of an investment bank, gathering long-term capital, favoring greater access to technology, and improving incentives for investments in sustainable development. This scheme would invest in projects that use biological resources sustainably and benefit the local population, while still offering adequate long-term returns to investors.⁽¹⁹⁾

CHOICES AND PRIORITIES

Living in a sustainable world will require a massive shift of resources, and major changes in individual and societal priorities and values. Clearly, some hard choices will have to be confronted, and new priorities established. One such policy issue involves using the vast sums of money invested in military expenditures for environmental purposes.

Worldwide, nations spend nearly \$1 trillion a year on military security... more than \$2.7 billion a day. The arms race — already the longest, largest and most widely spread arms race in human history — has been a major drain on the economic performance and development of most countries. It is a prime factor of the Commonwealth of

by the end of the century, this would release enough funds to provide the \$1.2 trillion required for stabilizing population, reducing deforestation and conserving biodiversity, increasing energy efficiency, tree planting, protecting topsoil on cropland and erasing Third World debt.⁽²²⁾

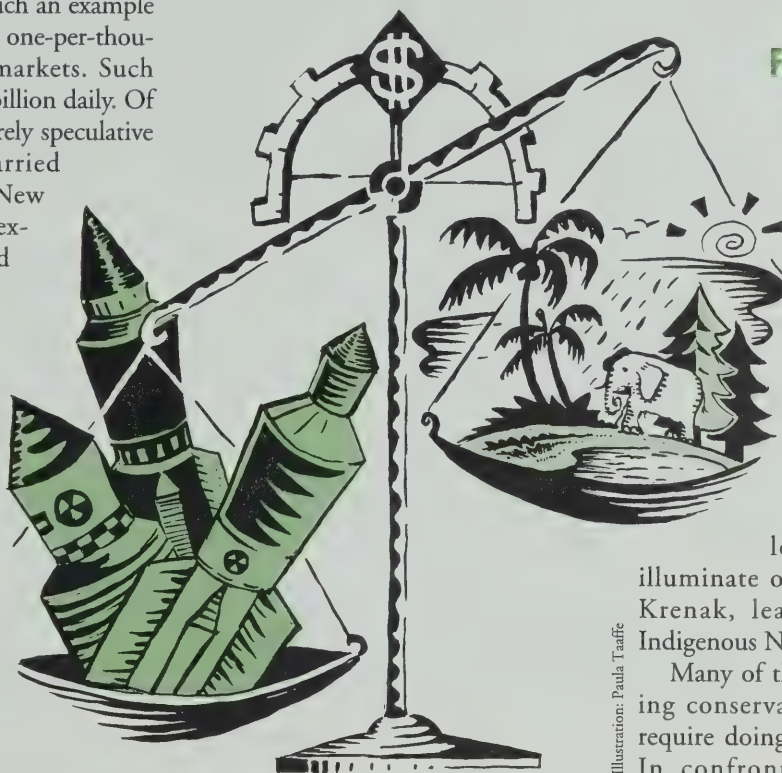


Illustration: Paula Tarffe

Independent States' economic crisis, of America's falling behind economically and of the failure of development, especially in Latin America.⁽²⁰⁾ Developing nations have been particularly active in this market, increasing their arms budgets fivefold in the past 20 years. Some countries are spending more on their military than they are on education, health, welfare and the environment combined. A proportion of these expenditures could well be shifted to more productive purposes.⁽²¹⁾

However, it is highly unrealistic to expect that countries will cut totally or even in half their military expenditures in the near future. Taking into account present trends, IUCN has come up with a very innovative proposal. If the world military budget were cut by 5 per cent in 1991 and up to 18 per cent

illuminate our spirits," says Ailton Krenak, leader of the Union of Indigenous Nations of Brazil.

Many of the proposals for integrating conservation and development require doing things more efficiently. In confronting such challenges, observers identify two areas of leadership: political leaders of the kind who can inspire their fellow citizens with a fiery sense of mission to save the planet; and intellectual leadership calling for scientists to probe present trends, formulate bold initiatives and redefine a new planetary consciousness, one in which ecological dependency and freedom are closely linked. In the end, the interdependence of problems and solutions requires that all nations come together to share their visions and efforts.⁽²³⁾

The drive for a sustainable world also requires bold new initiatives, such as improving the status and educational opportunities for women and investing in people, through a renewed commitment to multilateral cooperation.⁽²⁴⁾ There is a need for new economic tools, new international laws,

NEW MINDS FOR NEW TIMES

What is required for survival in the 21st century, say some experts, is less a revolution of the means than a regeneration of the minds. Building an environmentally stable future requires some vision of what it would look like. "We have to



CIDA Photo: Bruce Paron, Nigeria

At the International Institute for Tropical Agriculture in Nigeria, scientists are working on a biological control program.

new concepts of security, and more effective public participation in decision-making.

Clearly, lifestyles will have to change significantly. In the affluent world, there is now a growing awareness of the need to limit growth and consumption. There is also a recognition of the degradation which has resulted from ignorance and unsustainable consumption patterns. Such awareness should lead the rich countries to recognize their responsibilities and provide the financial and technological assistance required to support other regions of the world in choosing alternative patterns of growth.⁽²⁵⁾

Among the best political systems the world has experienced is democracy, because it prizes freedom in all its forms. Two of its main characteristics, accountability of governments

and participation from communities, are key ingredients for both economic growth and environmental protection. In fact, many local groups and organizations have come up with initiatives driven by a global vision, while ensuring, at the same time, that projects address people's real needs.

Public opinion and awareness

According to many, the root cause of the present environmental crisis lies in the fact that too many governments and people still tend to take the planet's renewable resources for granted. This situation calls for greater efforts to increase public knowledge and participation. Governments, voluntary organizations and the media all

have a duty to inform the public of these critical issues, especially about the links between environment, development and security. Global action requires the efforts of many, but ultimately public opinion is the major force that will shape and modify existing policies.

In these matters, individual responses will be essential, along with financial and personal sacrifices. Because only a global vision can save the earth, every individual on this planet must be made aware of its vulnerability and of the urgent need to preserve it. In the long run, no attempt to protect the environment will be successful unless ordinary people, in both the developing and developed world, are willing to change their lifestyles. People must start doing a thousand things differently in their day-to-day lives.

CONCLUSION

Managing the earth in a sustainable way is probably the greatest test facing humanity as it heads toward the 21st century. Rich countries must now develop their economies very differently than they have in the past. It presents a special challenge to developing countries, who are anxious to catch up to the developed world but realize that there is a huge price tag for environmental degradation. For them, development will be more complex and more expensive than it was for the affluent countries.

The 1992 UN Conference on Environment and Development in Brazil sheds new light on some of the complex issues and provides an occasion to review the many initiatives already under way. This Conference is an important step in a process — perhaps the world's last in this decade — to change the course of development. It provides the international community with both opportunities and risks. Many in the South fear that the industrial nations of the world will fail to match the fine rhetoric of their leaders with the funds needed for getting the world on a path towards sustainable development. But money alone, they say, is not the answer. What is required is a real change in the nature of the relationship, a change in trading patterns and access to technology, so as to ease their debt burden and improve their terms of trade.

CIDA Photo: Benoit Aquin, Haiti



The future in large part depends on the way the world deals with the seriousness of a global-scale depletion of renewable resources. Doom and gloom predictions need not be true. Options, solutions and ways of financing them exist. The world has the means and the technology needed to help save tropical forests and protect disappearing species, to reduce poverty and better plan the human family, to preserve soils, range-lands and fisheries, and to provide more

food, contain climate change and control regional and local pollution.

Scientists believe the earth is capable of meeting the challenges of the next century. Putting the world on the path of sustainable development will likely take decades rather than years, and will require leadership and considerable efforts and sacrifices from all. Failure to act decisively will ensure only that the problems become much more severe, the choices harder and their price higher.

*The future in large part depends on the way
the world deals with the seriousness of a global-scale
depletion of renewable resources.*

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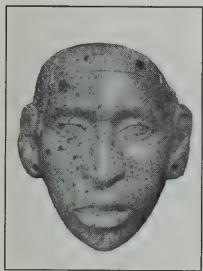
The Americas

Canadă



*A luxurious tapestry
poncholike shirt features
a checkerboard pattern
of twenty-four textile
designs. Only nobles
and other privileged
members of Inca society
were permitted to wear
such finery.*

The Americas



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Development, Autumn 1992

A Review

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Minister's Message



The Americas present a rich tapestry of cultures, countries, traditions and resources. Shaped by people from all parts of the world, it is full of the energy and optimism of frontier societies.

This anniversary year of Columbus' voyage to America marks a watershed for our hemisphere. In the north, a Free Trade Agreement was signed, linking the Canadian, American and Mexican economies. In the south, the growth of democracy and the shift to free market economies point the way to recovery for debt-ravaged nations, opening the door for possible extension of free trade.

Countries such as Mexico, Chile, Venezuela and Brazil are on the verge of take-off, where growing economies offer the potential for social progress, and prospects are bright for closer links of economic and development cooperation between Canada, Latin America and the Caribbean.

Canada has a long history of relations in the region. Some of those ties pre-date Confederation: our Maritime provinces were trading in rum, fish and timber with the Caribbean islands as early as three centuries ago. New France had developed a similar trade pattern even earlier, and lasting links have also been forged between Latin American and Quebec communities, largely through the educational and medical work of religious and lay people from Quebec over the past century.

There is every reason for Canada's relations with Latin America and the Caribbean to become much closer, as global interdependence grows in the years ahead. So it's important that Canadians learn more about the region's history, its societies, and the trends that will shape its future... as well as the development efforts and needs of our very diverse neighbours - ranging from Brazil, the world's eighth-ranking industrial power, to Haiti, the hemisphere's poorest country and one of the world's least-developed.

I hope this issue of *Development* will help Canadians better understand the vast and varied hemisphere we share with the people of Latin America and the Caribbean... and see more clearly its problems, its potential, and the greater Americas we can build together.

A handwritten signature in cursive script, reading "Monique Landry".

Monique Landry
Minister for External Relations
and International Development

COLUMBUS' CONTROVERSIAL LEGACY

As Europe and the United States celebrate Columbus' 500th anniversary of his first voyage to the New World, many in the Americas are pondering whether a celebration is appropriate for this anniversary.

Not only are his exploits at the heart of the dispute, but the man himself is the subject of much controversy among historians, perhaps even more today than when he lived.

Yet, his importance can hardly be ignored. Numerous places in this hemisphere bear his name: from Colombia, in South America, to the District of Columbia, USA; from the cities of Colón in Argentina, Cuba, Panama and Peru, to Columbus, Ohio. For most Westerners, Columbus dominates the age of discovery and symbolizes the enormous religious, political and economic changes that swept Europe during the 15th century.

Radical scholars have attacked the heroic view of Columbus as a great explorer by portraying him as a second-rate adventurer and a brutal colonial administrator; a man, they say, driven, first and foremost, by the search for gold, whose legacy includes distrust and subjugation. But the controversy over Columbus extends well beyond the man himself. At the heart of



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the dispute lie deep and opposing views about his legacy. In this year of the 500th anniversary, these very different views of history are pitting communities against one another, natives against Europeans, and scholar against scholar.²

For some, Columbus is a hero and his voyage a triumph of human progress; for others, his legacy is one of domination and coercion. According to the first interpretation, Columbus and the Europeans who followed him brought civilization to an immense and sparsely populated continent, breeding into people a fierce desire for freedom. Advocates of the second school of thought believe that the indigenous peoples and their cultures were doomed by European arrogance, brutality and infectious diseases. And the notion of Columbus discovering America is nothing less, they say, than a Euro-centric version of history. America was never lost. In fact, it thrived and prospered long before the Europeans arrived.

*"To some, especially in Latin America, Columbus represents the double-edged nature of much of human achievement. His legacy is mixed, for his deeds had a price. Because of the European discovery of the New World, entire peoples were decimated in the Americas as alien diseases, cultural shock, and sheer rapacity took their toll. Others were subjugated and enslaved. To them, Columbus's acts amount not to discovery but to invasion. He is the archetype of the alien conqueror, the oppressor."*³

Whether Columbus is a hero or a villain, however, has more to do with morality than history. In reality, two worlds collided 500 years ago, and the region has never been the same since. From that point on, the Americas and Europe reciprocally influenced one another.⁴

Originally, the agents of change were simple. There were horses and cattle, on which the Old World depended for mobility and protein, but which were unknown in the Americas. There were corn and potatoes, native to the Americas, that quickly became essentials in Europe and Africa. Along with a host of other crops, these items of exchange helped create the web of interdependence that still drives our world today.⁵

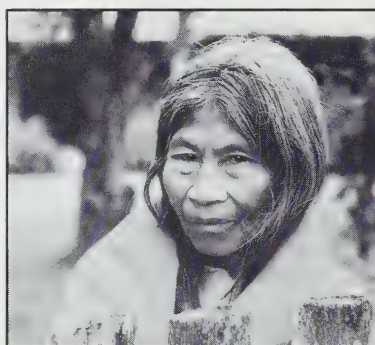
Yet, for all its intensity, the Columbus controversy has little to do with 1492 and almost everything to do with the 1990s. The peoples of the Americas have been engaged in another major attempt to shape

their future, to find their place in the global economy of the 1990s, amidst renewed respect for democracy and human rights.

For many people, especially Americans, 'America' is synonymous with the United States or, more generally, the northern part of the hemisphere. In this document, the focus is on the other America: Mexico and Central America, South America and the Caribbean.

This issue of Development is designed for all those who wish to have a broader understanding of the region's progress and challenges. Part One provides the reader

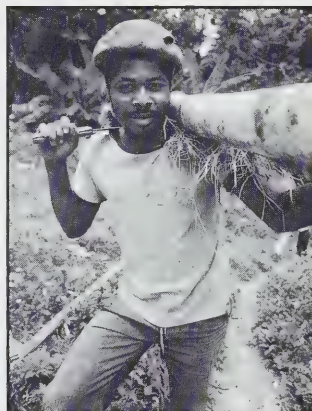
with some background information on geography and history, both of which are crucial to understanding the region. It also highlights the Americas' significant contribution to the welfare of the world. Part Two introduces the major forces that have moulded



CIDA Photo: Stephen Homer, Paraguay



CIDA Photo: David Barbour, Mexico



CIDA Photo: David Barbour, Jamaica

the region's development, as well as those currently shaping its present course. Part Three sums up the major challenges and probes some of the future trends likely to influence the Americas in the 21st century.

Part 1: Understanding the Americas



THE AMERICAS' MAGNIFICENT HERITAGE

THE EMPIRES OF PRE-COLUMBIAN AMERICA

Under native kingdoms, architecture and culture blossomed – palaces were built, metallurgy was developed and sophisticated agricultural techniques matured.

A LAND OF DIVERSITY AND CONTRASTS

Latin American and Caribbean countries share common features. The climates are primarily tropical and the majority of the land mass is located in the southern hemisphere. Poverty is widespread, especially in countries where the existence of dual economies is the norm rather than the exception. The nations of the Americas also share a history of European colonialism, and, for those original Spanish colonies, membership in a continental-scale culture of art, music, literature and religion, which binds the region together. Yet, these similarities aside, the Americas is a region of sharp contrasts and profound differences.

Countries differ according to size, population, and level of economic and social development. Brazil, for instance, covers 41 per cent of the region's land mass, accounts for 35 per cent of the population and more than 33 per cent of the entire GDP. At the other end of the scale are the small islands of the Caribbean with populations of less than 100,000 inhabitants and highly vulnerable economies. The standard of living varies dramatically, with some countries (Mexico, Chile

and Brazil) newly industrialized, while others (Bolivia, Guatemala, Haiti and Guyana) are among the poorest of the developing world. Yet, the region as a whole is more industrialized and urbanized than either Africa or Asia, and its pace has proceeded rapidly in many places in the last half century.¹ Overall, the region comprises 45 countries and territories, one-sixth of the Earth's land mass and close to 450 million people.

When Columbus landed in the Caribbean in 1492, little did he know that his discovery of the New World would eventually uncover civilizations thousands of years old, with wealth beyond the conquerer's wildest dreams. These cultures featured a high degree of urban concentration and sophistication unsurpassed by societies of comparable technology elsewhere in the world.²

The shock of these two cultures' meeting would be so great that historians have come to distinguish two periods: before and after European conquest. The first refers to the highly complex urban societies that thrived in Mesoamerica and South America up to the 15th century. The second period accounts for much of Europe's impact on these societies up to the 19th century, and on the U.S. up to the present.

THE SOUTHERN CONTINENT

Civilization came first to Peru. Rivers that ran down the western slopes of the Andes eventually cut across the coastal desert to the Pacific.



CIDA Photo: David Barbour, Mexico

The Americas



The Americas refers to the land mass south of the United States' border with Mexico. It is generally divided into three regions: Middle America — from Mexico through Panama — South America, and the islands of the Caribbean.

South America is the giant in this part of the world. The continent is dominated by the Andean Cordillera, a mountain chain, that has shaped continental and global climate, transportation and economic development. The Amazon basin and its many

tributaries form the largest lowland of the continent. The Amazon basin as a whole is as large as the continental United States, covering more than 5 million km², and carrying about one fifth of all river water in the world.

Central America unites the two huge land masses of North and South America. Wet forested lowlands and a series of highlands, with volcanic peaks and small-scale basins, define the region from Panama to Guatemala. Volcanic activity in this part of the world is

intense. There are over 80 volcanoes, some 30 of which are still active.

From Venezuela to the Yucatan peninsula, the volcanic and coral islands of the Caribbean form a chain that encircles the sea and seems to link the Americas. These are the Lesser and Greater Antilles, which are made up of many countries and territories — Cuba, Haiti, the Dominican Republic, Barbados, Jamaica, the Leeward and Windward Islands, and Trinidad and Tobago.

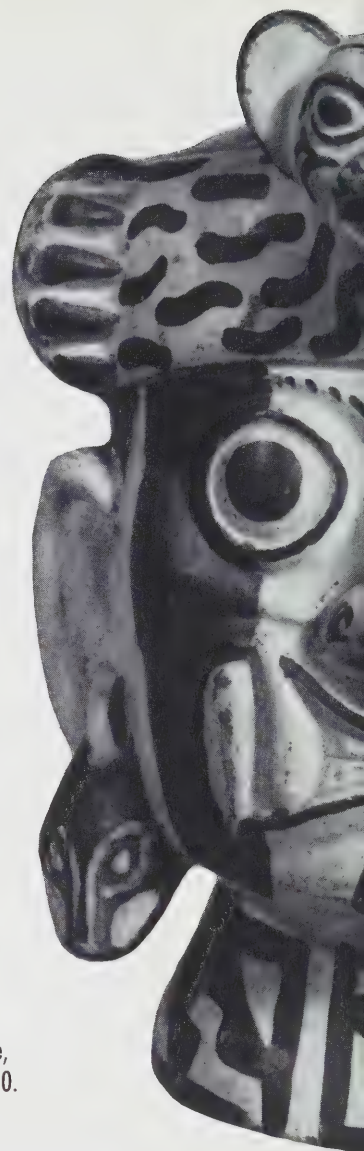
The early inhabitants of the region learned of these fertile lands. Archeological records show that as early as 2400 BC, irrigation was practised. By 1750 BC, farmers in the lower Rimac Valley built a canal six kilometres long that quadrupled the amount of arable land previously available. With the spread of agricultural knowledge throughout the Central Andes, population increased in size and gathered into larger communities. By 1400 BC, a new cult had culturally integrated much of Peru's central region. Twentieth century scholars would call its adepts the Chavin, after a religious centre found in a remote



Polychrome ceramic vessel. Nazca culture, A.D. 200 - 800, Peru

valley on the eastern slopes of the Andes, near where the town of Chavin de Huantar would be built much later. The Chavin appeared to establish themselves first by conquest, but gradually they came to rely more on the force of their ideas and their organizational skills.

But, at the height of its power, the Chavin world began to crumble. Historians still have very little evidence as to why the first American civilization ended, or what happened to the Chavin themselves. The Chavin empire would soon be followed by other kingdoms, but its influence would permeate all the subsequent civilizations in that part of South America.



Moche ceramic bottle, A.D. 200 - 300.

The First Americans

Ancient Civilizations



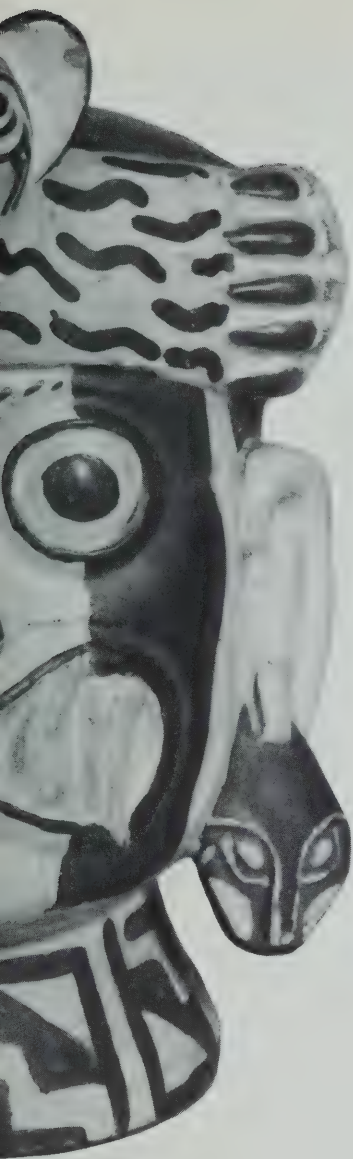
The precise date of the arrival of humans in the Americas is still clouded in uncertainty. According to most scholars, people migrated from Siberia to Alaska, probably some 35,000 years ago. They seem to have been stranded in the northwestern sector of North America, for a long period of time, by thick

ice formations. When the glaciers retreated and valleys opened up, hunters and nomads began to follow the southward progression of game animals, spreading through Central America, again in a process that took thousands of years.

South America was occupied by early humans some 10,000 years ago. Slowly, agriculture developed. At first, cultivated crops were no more than a supplement in a diet based on game and wild plants. Gradually, improved varieties were developed. As agricultural knowledge spread, farming communities formed and population began to increase. By 2500 BC, irrigation techniques were making farming more productive and maize was introduced from the Andes to the littoral. By the second millennium BC, the emerging pattern of society in the Americas

was clear: scattered villages and hamlets, located near fields, formed much of the life. Some of these centres would grow in power and prestige, forming the bases of the first pre-Columbian civilizations: the Olmec in Mesoamerica and the Chavin in the Andes.

At the beginning of the first millennium AD, other distinctive regional cultures, such as the Nazca and the Moche, emerged. Around the same time, Tiahuanaco, on the eastern side of Lake Titicaca, began developing as a large ceremonial centre. Under these kingdoms, architecture and culture flourished: palaces and elaborate multi-room buildings were constructed, metallurgy was developed, and agricultural techniques, such as terracing and irrigation, matured. Already a thousand years before the Spanish conquest, the Central Andes had the most developed agricultural and irrigation systems in the region, the densest population south of Mexico, and the most efficient system of overland transportation in the western hemisphere.



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Incan silver figurine. The elongated earlobes were a signature of the Inca elite.

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trolled by the emperor and divided among the state, the Church and the people according to a standard formula.

MESOAMERICA

In Mesoamerica, civilization followed a path similar to that in the Andes.

Gathered in little independent villages, the Meso-americans had developed corn around 4000 BC. By 1400 BC, the Olmecs extended their influence throughout much of the region. This was to last for close to a millennium. The Olmecs were responsible for the rise of the first complex society. One of their religious sites, La Venta (900-400 BC), had an earth-built pyramid of 110 metres with a population estimated at 18,000. Such a site indicates a degree of population concentration and social organization unprecedented in Mesoamerica at that time. Historians believe that at the height of its power, the Olmecs may have ruled the lives of some 350,000 Mesoamericans, most of them common folks. The Olmec elite knew enough about astronomy to calculate the length of the year and to devise the first calendar in the Americas, a millennium and a half before the Aztecs. Like the Chavin culture in Peru, Olmec society served as a foundation upon which other Mesoamerican civilizations would be built.

by Peru, Ecuador, Bolivia, and the northern part of Chile, imposing its religious beliefs and practices, as well as much of its culture and its language, Quechua, still spoken today in these countries. The Incas, like the previous kingdoms, based their economies on state-controlled irrigation works, which made the production of huge agricultural surpluses possible. The surpluses were con-

In all cases, irrigation provided the driving force behind the rise of these kingdoms. Flourishing agricultural economies led to the growth of urban centres. These were highly structured societies, supported by small farmers and conscript labor, defended by well-trained and disciplined troops, catered to by highly-skilled craftsmen, and ruled and regulated by a class of priests, nobles and kings.

Around 1200 AD, the Chimu, in the north of Peru, developed their kingdom. By the time of their conquest by the Incas in the 1460s, the Chimu had established an empire that stretched over 1000 kilometres. The Inca Empire preceded the Spanish conquest by less than a century. At the time Inca civilization reached imperial proportions, it ruled the area occupied today

South American Indian languages

While some scholars believe that all American Indian languages are related, it is undisputed that South America is one of the most linguistically diverse regions in the world. Consider these estimates:

- Some 1500 languages are believed to have existed either in written or spoken form.
- Between 550 and 600 languages have been verified; about 120 languages are now extinct.
- There are 82 language groups, of which almost half are isolated languages.

Some 25 groups are extinct and at least 10 more are on the verge of extinction.

The most important language groups are Macro-Chibchan, Arawakan, Cariban, Tupian, Macro-Ge, Quechumaran, Tucanoan, and Macro-Pano-Tacanan. Quechua, originally spoken in small areas around Cuzco, was the official language of the Incas. Later it was spoken by the Spaniards and was often used as the language of evangelization.

The breakdown of Amerindian cultures

The rapidity and sheer scale of the Spanish conquest never fails to impress the people who study it. In the course of fifteen years, two great Amerindian societies collapsed under the assault of a handful of Spanish adventurers. Why did these societies disintegrate so abruptly? What were the real factors behind the collapse of these empires?

The technological advances enjoyed by the conquerors have often been cited to explain the breakup of these states. However, some historians doubt that the

decisive factor was the technological superiority of the Spaniards: firearms, they say, undoubtedly gave them an edge at times, while the horse, unknown in America, allowed them a high degree of mobility. But what really made the difference were internal feuds. The Spaniards took advantage of divisions and growing rivalries among Indian groups. At the time they were assaulted, both empires had been weakened internally, by splitting factions and civil wars.

Other kingdoms centred on cities followed. Such a city was Teotihuacan, in the valley of Mexico. At the peak

of its expansion (250-150 BC), the city covered more than 20 km² with a population estimated at close to 125,000 people.



This Mayan eccentric flint symbolized supernatural powers.

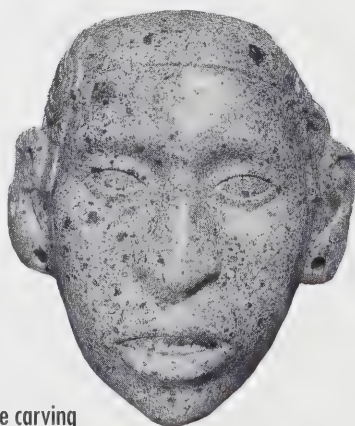
Meanwhile, other regional societies developed vigorous and brilliant cultures. The most noteworthy were the Mayas, whose art and architecture

matched those of Teotihuacan. Maya scientists had developed one of the world's most complex and accurate calendars. The other main focus of regional culture existed in the valley of Oaxaca, south of Mexico. Monte

Alban, with a population of about 30,000, became the leading city in the southern highlands.

Teotihuacan and the other large cities all declined around the same time. The reasons for this widespread collapse of highly advanced urban cultures remain obscure. Ecological and social factors often cited, though without any certainty as to their relative importance, include the collapse of local resources, economic crisis and the breakup of the regional trading system, rigidity of the social structure, and foreign aggression.

The immediate consequence in the Valley of Mexico was a redistribution of population towards north and south, which in turn favored the emergence of Toltec rule. The Toltecs governed most of central Mexico in the first millennium AD, but internal rivalries precipitated the fall of the



Stone carving of Tezcatlipoca, Aztec god of war.

empire. The collapse of the empire left the way open for further waves of northern incursion, especially from the Aztecs, who established themselves at Tenochtitlan, present-day Mexico. From their earliest history, the Aztecs considered themselves a chosen people. The warrior nature of this society was further reinforced by religious beliefs. Conquest became a condition for survival. By the time their capital city, Tenochtitlan, fell to the Spaniards in 1521, the Aztec empire extended over most of central Mexico. The city itself, with its 250,000 inhabitants, had been built on a grid of canals with elaborate hydraulic works, ceremonial centres, palaces and markets. The Spaniards who conquered the city compared it to Seville or Cordoba. In reality, Tenochtitlan was bigger and more populous than any city of the Americas or Europe.³

THE CARIBBEAN ISLANDS

The Caribbean islands were first settled by the Arawaks, an Amerindian tribe which originated around the Amazon Basin. Their arrival and settlement in the Greater Antilles dates from the late 11th century. The Arawaks were a relatively advanced and peaceful people. Artistically, they were among the finest potters in this part of the world. They held a complex set of religious beliefs and practices similar in structure to many other aboriginal peoples. The Arawaks operated a subsistence economy, oriented both to the land and to the sea. Root crops — yams, manioc, sweet potatoes — were grown alongside beans, squash and corn. Animal protein was supplied from seafood and water fowl. Apples, papayas and coconuts were common fruits in their diet. Peppers, cotton and tobacco were also grown. The Arawakan society was rigidly stratified into classes, and life centred on the village, which usually contained about 100 to 200 households and about 1,000 to 2,000 inhabitants.

The Caribs, like the Arawaks, were Amerindians who had originated in

South America. They arrived in the islands long after the Arawaks. Successive waves of migration led to open conflict between the two groups. These wars invariably led to a Carib victory. Carib means 'valiant man', and the warrior instinct pervaded the entire society. Like the Arawaks, their economy was oriented to both the land and the sea, especially the latter. Of all the tribes in the Caribbean and Central America, it was the Caribs who opposed European colonization most stubbornly.

THE EUROPEAN CONQUEST AND ITS LEGACY

Latin America and the Caribbean was the first region of the world to fall under European control. Portugal and Spain set the tone in the search for new trade and new territories, opening the way to an astonishing period of maritime exploration and imperialism.

The effects of European conquest varied according to the intensity of settlement and exploitation, as well as the density and organization of Indian populations. Some, like the Choco tribes of the tropical forests of Panama and Colombia, having nothing of value to the Europeans, were bypassed by the Spanish victory.⁴ But for the majority of natives, the European conquest meant a complete change in their society, culture and economy.

In the Caribbean, European landowners turned first to production of tropical crops. By 1650, sugar dominated most economies. The sugar plantation society literally transformed the agriculture, demography and culture of the Caribbean, as well as its politics and economy. Because the decimated Indian population in the Caribbean was too small to provide sufficient labor for these plantations, the Europeans turned to slave labor from Africa. About half of the 10 million or so African slaves brought to the Americas were sent to the Caribbean to work on plantations.

Sugar plantations created a society that was rigidly divided along lines of

color and legal status. The white minority consisted of a small, powerful elite of planters, along with merchants and professional men. The overwhelming majority of blacks, by contrast, were slaves. Alongside them emerged a class of free mulattoes and blacks. Social tensions of various kinds were thus latent on the islands, and there were occasional outbursts of violence.

In Latin America, the Spanish conquest resulted in the downfall of most of the native cultures of the region. Land ownership and use radically changed the agricultural base of the indigenous society. Under the system known as the *Encomienda*, Spanish settlers received a large grant of land, often the best, including its Indian occupants. This system was initially designed to 'civilize' the Indians and protect them from European exploitation. But there were many abuses, as Indians were parcelled out among the settlers as slave laborers and servants. The legacy of these grants can be seen today in South America as *latifundia*, or *hacienda* in Mexico.⁵ While a small minority controls most of the land, the Indian population in the countryside remains, even today, clustered on tiny unproductive farms.

To sum up, early development by Europeans emphasized production of goods with high value: sugar, coffee, and cacao as well as silver and gold. Reliance upon a few tropical crops and minerals for export earnings remains one of the most important vestiges of the colonial era.



A 15th century European view of the new world.

TOWARD INDEPENDENCE

At the beginning of the 19th century, a feeling of alienation had grown between Spain and its American colonies. By the time of Napoleon's invasion of Spain in 1808, Spanish Americans had already begun to possess a pride in their homelands, a consciousness of their own interest and identity, a conviction that they were Americans, not Spaniards. The ensuing wars of independence were cruel and the battles heroic. By 1826, Spain had lost everything except the two islands of Cuba and Puerto Rico, and 300 years of empire came to an end.

But the heroes of independence, like Simon Bolivar, soon gave way to the *caudillos*, the war-lords, whose rule was based on personal power. *Caudillos* were created and ultimately controlled

by the new ruling class. Its power was vested in the *latifundia*, a relatively inefficient organization, absorbing too much land and too little capital, and carried ultimately on the back of cheap labor. The polarization of society between an elite of wealthy land-owners on the one hand, and the rural masses on the other, became the dominant feature of independent Spanish America.

Economically, Colonial America had been a producer of raw materials (precious metals and tropical crops) and a market for manufactured goods. After independence, this economic framework — the primary export economy — persisted until the 1930s, and still remains predominant today in many countries. The social structure, also inherited from the colonial period and kept intact through the independence period, resulted in a failure to create a viable modern political system in the new nations. Bolivar, South America's liberator, once lamented that "Independence is the only benefit we have gained, at the cost of everything else."

In 1823, following the region's accession to independence, the emerging United States proclaimed the Monroe Doctrine, which prevented further intrusion by European colonial powers in the Americas. The Monroe Doctrine also had the side-effect of making Latin America subservient to the national interests, especially economic, of the US.

TODAY'S AMERICAS

By the early 20th century, changes were in the making, especially in the larger resource-rich countries of South America. Economic development, fuelled by a growing demand for primary exports and a greater role for the state, helped to transform the region, especially in the larger centres. The breakdown in international trade created by two world wars and the Great Depression induced greater industrialization, which, in turn, boosted urban growth. These changes also led to the emergence of a new urban middle class, strongly nationalistic, whose support for populist regimes led to the replacement of the oligarchic regimes of the past.

Today, the entire population of the Americas is the result of four centuries of race mixture among four groups: Amerindians, Iberians, Africans and overseas immigrants. In addition, there is a small number of Asians, originally brought in as indentured laborers, in the West Indies, especially in Guyana and Trinidad. Marriages between these different races have created a mosaic: mestizo, mulatto, and zambo are some of the names used by people to set apart the different ethnic types that make up the population. This mosaic is at the heart of the region's culture. Under these influences, the Americas, an ancient world, became a new world,

one in which influences have mixed and spread across the continent. Western culture, the African heritage, even some Oriental elements, all added to the native, pre-Columbian tradition, have created in the process something new, rich and unique. Throughout this century, a growing sense of national identity generated a re-evaluation of the Indian and Mestizo heritage. Even where this element was virtually lacking, efforts were nonetheless made to re-create a national popular tradition.⁶ People in the Americas have come to be proud of their distinctiveness.

"We are neither Europeans nor Indians, but a cross between the aboriginal population and the Spaniards, a civilization with its own personality which must be developed without inferiority complexes."

— Simon Bolivar, quoted by Salvador Allende

This sense of a common identity is rapidly gaining ground. According to Gabriel Garcia Marquez, there is, culturally, for the Caribbean peoples as well as for Latin Americans, a perfect symbiosis between the people, daily life and the natural world. The whole region is soaked in myths brought by the slaves, mixed with Indian legends and Andalusian imagination. The result, he says, is a very special way of looking at things, a conception of life that sees a bit of the marvelous in everything, one in which magical situations seem to be part of everyday life, like any other aspect of reality.⁷ This trend runs deep in the rich novels, poetry and plays of Latin American and Caribbean writers.

"I no longer think of myself as Colombian; first and foremost I am Latin American and proud of it. Each country has its own special circumstances, but what really matters is our underlying common identity."

— Gabriel Garcia Marquez,
Nobel Prize Laureate for Literature

This sense of unity is also sustaining the drive toward some form of regional integration. The Americas continues to be a region of diversity and contrasts. Yet, at the same time, these countries now realize that they share strong common interests domestically, regionally and internationally.



CIDA Photo: David Barbour, Jamaica

THE AMERICAS' CONTRIBUTION TO THE WORLD

Because of its vast and diverse resource base, the Americas' contribution to the rest of the world over the last four centuries has been significant. As this chapter reveals, it extends well beyond what attracted the Europeans in the first place.



Indians pan for gold in a scene from Fernández de Oviedo's 1535 history of the Indies.

ONE HUGE TREASURE CHEST

The New World was first known for its mineral wealth. The myth of old cities full of gold reached the Spaniards in the Caribbean, creating a powerful incentive to explore the mainland. The fall of the Aztec and Inca empires confirmed that wealth. Billions and billions of dollars worth of gold, silver, and other valuable metals were shipped to Spain and Portugal. The affluence of these empires was such that the Spaniards who conquered the Incan capital city of Cuzco were bewildered by its wealth: they saw gardens in the Inca palace where all manner of birds and animals were set in their natural landscape. The scene was made entirely of gold and silver.

In fact, gold was scattered all over

the continent in varying quantities. Silver was found above all in Peru and Bolivia, and to a lesser extent, in Chile, Argentina, Colombia and Ecuador. Discovered in 1545 in present-day Bolivia, the mines of Potosi yielded some 45 million pounds of silver to the Spanish treasury and produced some 60 per cent of the wealth Spain took from the Americas in the 16th and 17th centuries. Many parts of South America were also rich in gems. Diamonds, as well as other precious or semi-precious stones, notably topazes, tourmalines, beryls, aquamarines, and sapphires, abound in Brazil and on the eastern slopes of the Andes. Colombia is world-famous for its emeralds, found in the Muzo mines.

But all this wealth did little for Spain and Portugal. By an ironic twist of history, all those riches prompted further



Chavin ceremonial gold medallion.

development of military capabilities, and ultimately led to disastrous wars and conflicts, which drained the treasuries of both countries, and precipitated their downfall.

THE NEW WORLD'S CORNUCOPIA

Although rich in minerals, the Americas' most important contribution has been to the world food supply, in the form of domesticated plants and animals that are still the basis for the livelihood of many people today.

Of the scores of plants and animals found in the Americas, five have been diffused widely and are of world-wide significance today: corn, peanuts, manioc, potatoes and several varieties of beans.

Why we eat what we eat

Some researchers suggest that the encounter between the New World and the Old changed the way people ate. The explorers' journeys set in motion a migration of food and ideas between the Old World and the New, anticipating the modern revolution in eating habits. Prior to 1492, there was no such thing as distinctive national cuisines. Europe had no tomatoes, beans, potatoes, peppers or chocolate. And the New World had no livestock, dairy products, lettuce or oranges.



CIDA Photo: Virginia Boyd, Guyana



CIDA Photo: Virginia Boyd, Guyana



CIDA Photo: Benoit Aquin, Guatemala

Beans, pineapples and amaranth — originally cultivated in the Americas are now savored throughout the world.

Corn originated in the Andes but rapidly spread throughout Central and North America, where it became, by the time of Columbus' voyage, the basic staple crop of these societies. Corn is today the third most important grain produced in the world. Corn has a high protein and oil content, mature grain stores well and, with fertilization, it produces abundantly, even in tropical climates.

Peanuts were first domesticated in Brazil or Paraguay but were grown in Peru and other areas of Latin America

in pre-Columbian times. Peanuts are high in protein, adapt well to tropical and sub-tropical conditions, and are a major source of oil. Cashews, now cultivated in most tropical countries, and Brazil nuts, harvested from wild trees in the Amazon region, are widely used as delicacies, and are also eaten locally, raw or cooked.

Manioc (cassava) came from Brazil and was spread by the Portuguese to many of their colonies. Manioc grows well in tropical conditions and can be harvested over an extended time

period. Primarily grown for subsistence, it has become a basic ingredient in the diets of millions in Asia, Africa, South America and the Pacific.

Beans, widely grown by small farmers, form an important food item in most countries. Well-known varieties of beans domesticated in Latin America include kidney, lima, navy, pinto, and string beans. Beans have a high protein content and in the developing world often provide most of the protein in the diet.

In addition, squash, pumpkins, avocados, sweet peppers and eggplant, grown

Xitomate: the Andean connection



CIDA Photo: David Barbour, Mexico

It is believed that pre-Incan farmers, while growing their fields of maize on the slopes of the Andes, came into contact with a leafy weed that bushed aggressively. Wild, cherry-shaped fruits clustered along the vinous plants were widespread in parts of Bolivia, Chile, Ecuador, Colombia and

them as a condiment or in salads. The Aztec farmers called it xitomate or xitomatl. The Portuguese called it the Peruvian apple, early Spaniards simply "*manzana de amor*" or "love apples". By the time of the Spanish Conquest, the yield and varieties had broadened considerably through

Peru. It sprawled rapidly to Mesoamerica, thriving in pre-Mayan Indian gardens. For over five thousand years, the tomato has been used throughout the region as a staple — and still is today. Chileans stuff them with white cheese and bread crumbs; Venezuelans and Mexicans use

seed selection and domestication by Mayan farmers.

It is hard to imagine today's Italian or Spanish cuisines without peppers or tomatoes; yet, Europe scorned the tomato until the mid-19th century. The English and the French were most reluctant to eat it, but English gardeners soon filled trellises with them. For some 200 years, the bright, but ornamental fruits were left uneaten, partly because many believed they were poisonous. Some of the tomato's relatives, such as the belladonna and mandrake are indeed toxic.

Contrary to popular belief, the indigenous tomato is not a vegetable; botanically, it is a fruit — a berry, to be precise. Wild forms of the plant can still be found today on the Andes and in the Antilles.

Source: J. Robertiello, *The Americas Review*, 1990, p. 54-5.

by pre-Columbian farmers, have spread all over the world, as has the tomato, indigenous to the west coast. Cacao, native to the Amazon region, was highly prized by the ancient Indian civilizations, where it was used in religious ceremonies. Cacao trees were eventually extended to Africa, where the world's major production now occurs. Pineapple, probably indigenous to southern Brazil and the Parana River Basin, was cultivated in pre-Columbian times throughout tropical South America and the West Indies.¹ Portuguese travelers introduced the fruit into Africa and India.

Papaya and guava are native to tropical America, as is the potato. The Incas were known to cultivate 3,000 potato varieties. Two in particular played a significant role: the white and the sweet potato. The sweet potato is higher in vitamins and minerals than most staple crops. This luscious vegetable, however, requires relatively fertile soils, and is mainly used as a dietary supplement to rice, corn and manioc. Its greatest advantage comes from growing in sub-tropical conditions, where the white potato will not. The white potato is apparently a native of the Andes. Unlike the sweet potato, it thrives well in cool, damp climates; thus it was rapidly adopted in Europe, where it helped free farmers from recurring famine.

Other plants from the region which have had worldwide impact include cotton, tobacco, rubber and sunflowers. From Latin America, rubber trees were scattered throughout Southeast Asia where they became an important part of the European colonial economy. Cotton was known in Europe prior to Columbus' voyage — it was grown in Egypt — but the New World varieties account for most cotton produced in the world today. Tobacco was being used by the Indians of the Caribbean and other areas of both North and South America at the time of Columbus, and in subsequent centuries it has spread throughout much of the world.² Native to the Great Plains, sunflowers have spread to northern Europe, and especially Russia, where the new plant



First Light: Brian Vikander

Llamas, which are cousins to the camel, are used as beasts of burden and a source of wool.

was welcomed as a source of cooking oil and fodder.

Animal resources are less diversified than botanical assets. Turkeys, tamed by the Aztecs, spread rapidly through Europe. Llamas and alpacas, domesticated in the Andes in pre-Inca times, provided wool. Guinea pigs, raised for meat, were subdued about the same time. Chinchillas are native to the high Andes of Peru, Bolivia, Chile and northern Argentina. They were hunted for their delicate gray fur to the brink of extinction. Freshwater fish, abundant in most of the rivers, have been exploited since the earliest time, notably in the Amazon region and in Guyana. Marine fisheries used to be plentiful throughout the region.



Houghton Library, Harvard University

DRUGS AND CURES

In Spanish colonial America, Indian healers, armed with thousands of medicinal plants, were preferred to Spanish surgeons who often left patients worse off. Even today, a great number of South American plants provide valuable drugs, among which are quinine, cocaine and curare. Quinine, extracted from the bark of a tree, is used in medicine for various purposes, especially in the treatment of malaria. Coca leaves, an important element of native culture, have been used widely for centuries to fight altitude sickness. They are also known among local people to reduce fatigue, thirst and hunger. Cocaine is used medically as a powerful anesthetic. Curare, extracted from the bark of certain South American plants, was used by some Indians for poisoning arrows: it causes motor paralysis when introduced into the blood system and is now used regularly in medicine to reduce muscular spasms, as well as to fight tetanus and certain types of paralysis.

Biologists know that the great variety of aboriginal remedies still in use

contain many valuable substances. In the Amazon, indigenous people use more than 1,300 plants as medicines; many of these have yet to be studied. Hidden somewhere in the rain forest might well be plants with cures for AIDS, cancer or multiple sclerosis.

ARCHITECTURAL AND ENGINEERING MARVELS

The majestic architectural vestiges of the Mayan, Aztec and Incan civilizations represent some of the great wonders of the world. The ruins of Machu Pichu in Peru (below), or the Great Pyramid of Chichen Itza in Mexico are a vivid testimony to the high level of development among American peoples long before contacts with the first Europeans. Tenochtitlan, the Aztec

capital, supplied water through aqueducts to its 200,000 inhabitants. Their art forms have unique components and styles, unknown in other regions of the world.

The knowledge Amerindians had of architecture, engineering and astronomy has always puzzled specialists. The Mayan civilization had such an extensive understanding of mathematics and astronomy that their scientists developed one of the world's most complex and most accurate calendars. The Incan capital of Cuzco was planned in the shape of a puma with the great fortress as its head. Temples, palaces, storehouses and roads were built with skill and speed by thousands of workers throughout the vast empire, stretching from Colombia to Argentina.³ The irrigation works, on which these economies rested, remain unsurpassed even by today's standards.

RESOURCE RICH

In more recent times, the Americas have exported much of their natural wealth. The gold and silver that attracted the Spaniards are scattered through the highlands of Latin America from Mexico to Chile. They are especially important in the economies of Mexico and Peru even today, as the two countries produce over 30 per cent of the world's silver. Bolivia and Brazil are major producers of tin. Bauxite reserves in Jamaica and Guyana rank the region second in terms of world production. Iron ore is found in a number of areas, with major deposits in Chile, Brazil, Venezuela and Mexico. Brazil is by far the largest producer in the region. In terms of iron content, Brazil is the second largest producer in the world, while Chile ranks as the world's leading producer of copper.

Petroleum is the leading raw material in world trade. Latin America's production of crude petroleum totalled 6.6 million barrels a day in 1987, or 11 per cent of world output. Major producing countries include Mexico, Venezuela, and Ecuador. Mexico has been an important producer for the past 50 years, and its proven reserves place it fourth in the world. Mexico is the largest single supplier of petroleum to the US, and possesses after Brazil the largest refining capacity in the region. Petroleum is Venezuela's most important economic activity, providing more than four-fifths of the country's total export earnings. Other areas of the region which rely on petroleum include Trinidad and Tobago, Colombia, Peru, Bolivia, and Argentina. All have sufficient oil reserves to meet their own needs and earn export earnings. A survey of the region shows that, with the exception of coal reserves, the natural resources of the Americas are adequate to support industrialization far beyond that which presently exists within the region.⁴



First Light: Peter Benner

Part 2: The Major Forces Shaping Development



AMERICAS' CONSTRAINTS

Despite striking differences in population, income and levels of development, most of the region's economies have been plagued by similar historical and structural constraints to development.



Similarities include a high level of dependence on external conditions and forces, dual economies, common social patterns of income inequity and rigid class structures. In addition to these predicaments, most of the countries of the region must now face serious environmental challenges brought about by population pressures and mismanagement of natural resources. This chapter introduces some of the key issues shaping development in the region.

BOOM-AND-BUST SYNDROME

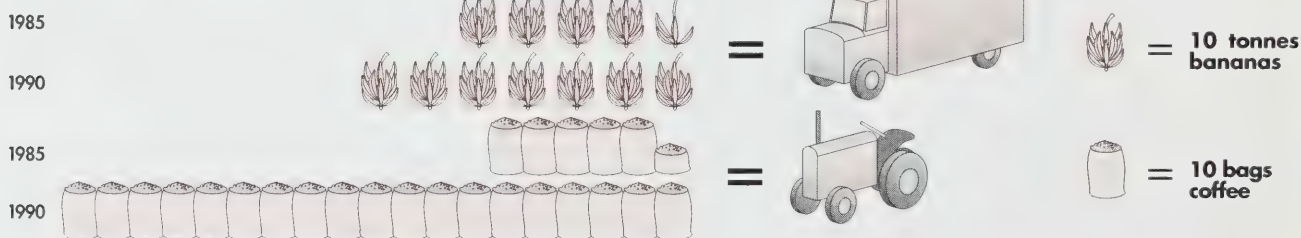
Cycles of growth and slump have seriously impaired the economic development of individual countries. They have also fuelled a boom-and-bust psychology. In response to world market prices, countries exploit one commodity during times of boom and abandon it when prices fall. A wide variety of crops and minerals —

ranging from tropical fruits to silver, from iron ore to petroleum — has gone through this cycle of exploitation, and in each case the effects have proven to be detrimental to long-term development.

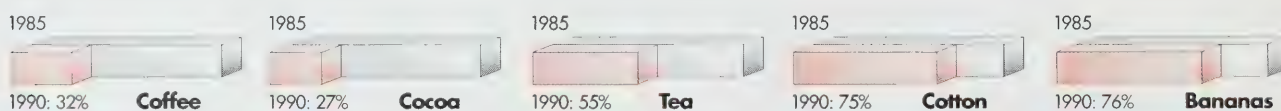
World prices for the region's products have decreased constantly throughout

Commodity Prices (1985, 1990)

Price Drop



Price Drop (% from 1985)



Source: H.W. Hetmeler, "A Drop in Commodity Prices", *Development Cooperation*, No.5, 1990, p.10



CIDA Photo: Jean François Leblanc, Haiti

the 1980s, with major products — tropical crops, minerals, oil — dropping by close to 40 per cent. Several reasons account for the adverse price trends, the most important being a glut on the world market for most agricultural products. Such huge shifts have had a ruinous effect on many farmers.

DUAL ECONOMIES AND SOCIAL INEQUALITY

The immense gap between the rich and the poor has always been a major concern for the region's stabil-

ity and growth. The descendants of Europeans typically own the large estates and control the banking, industrial activities, and other sources of wealth. They are the best-educated and have access to most opportunities.

On the other hand, the often illiterate urban and rural poor rarely share the benefits of progress. For a majority of the poor living in the cities, the most common way of making a living is through the informal economy, where wages are low. In the countryside, traditional exchange systems govern the rural economy. For the small farmers, engaged in subsistence agriculture, little has changed over the cen-

turies. The gap between the rural poor and the rural elite which dominates commercial agriculture geared only for export explains why the region does not consume its major food crops.

The region, with an abundance of natural resources and industrial capacity, generates a lot of wealth. Yet, despite all this affluence, poverty affects close to 40 per cent of the people of the region. Why are so many of its people poor? The answer, say many, lies not in underdevelopment but in mismanaged development.

Wealth has always remained in the hands of a small number of privileged people, the ruling elite. This structural inequality, which dates back to the colonial legacy and post-independence politics, has expressed itself in the close relationship between government, the church, the military and large landholders. The relative importance of these four groups has varied according to time and place, but all have affected

each country. Political systems have ranged from dictatorships to nominal

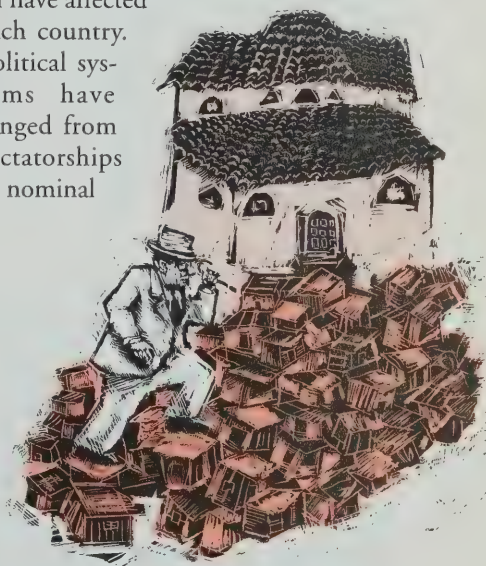


Illustration: Michael Harrington

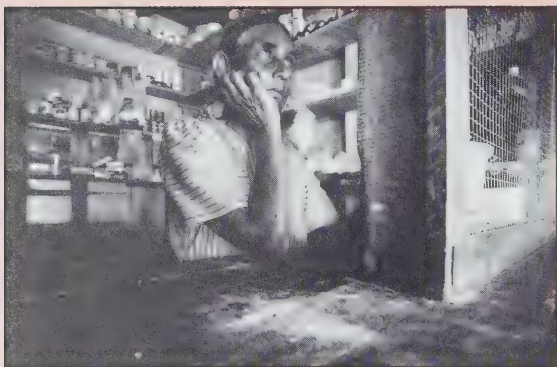
Rural poverty and urban unemployment

The Americas have not yet managed to generate employment opportunities in rural areas outside the agriculture sector. Essentially, this lop-sided development is the cause of the exodus from the countryside to the cities. The poorest people in villages, and most often the youngest, are drawn to the city by the prospects of making a decent living. What they find, however, is quite different from what they

expected — often, the end result is greater misery. The Americas' huge cities, rivalling in affluence and size those of Europe and North America, offer the best and the worst; the best to a small group of rich people who live very comfortably, and the worst to the majority of poor seeking to make a living in crammed shanty towns.

democracies, but in each case they have maintained the position of these elites. This social inequality in the distribution of wealth, income and political power is at the core of the region's greatest security threat. Even the advanced economies of the region, like Brazil, Mexico, Argentina, Venezuela, Chile, Uruguay and Colombia, have marked dual-economy characteristics, with extensive areas of poverty and underdevelopment.

A few facts on debt dollars



CIDA Photo: Virginia Boyd, Guyana

A report by the National Council of Christian Churches establishes that the interest paid by Brazil in 1988 alone corre-

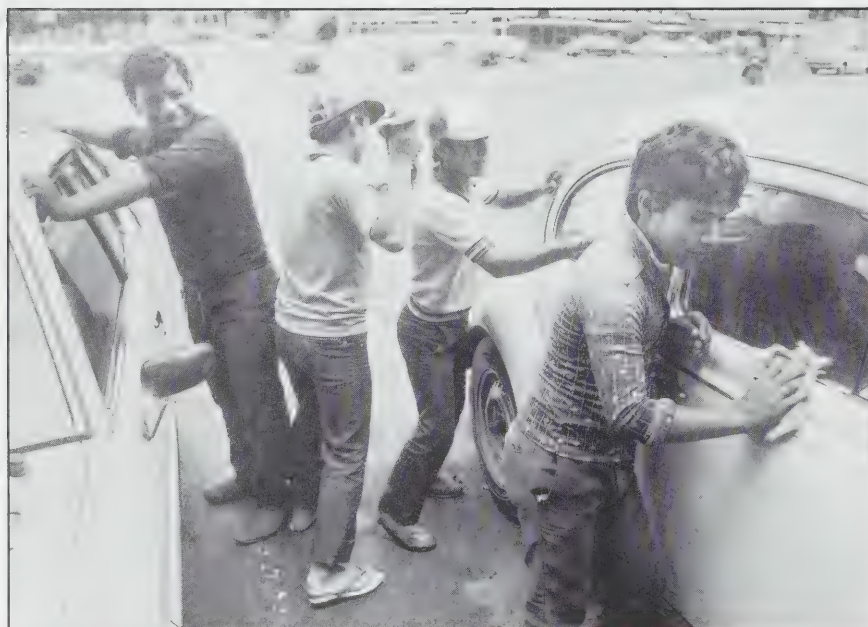
astronomical figures seem unreal, abstract. Yet, this is the reality with which the Americas have to struggle.

sponded to 266,000,000 minimum monthly living wages, or 81,700 classrooms, or housing for 30 million people. Between 1972 and 1988, Brazil had already paid commercial banks a total of \$176 billion in interest, or \$52 billion more than the actual amount of the debt of \$124 billion. These

THE DEBT FALLOUT

The debt problem erupted in 1982, when first Mexico, and then Brazil, declared a moratorium on their debt payments. Lower export revenues and high interest rates made the carrying costs of the debt virtually impossible for many countries. In turn, the debt crisis led to high interest payments, galloping inflation and, in most cases, a crisis of confidence in the region's economies. The result

was a large net capital transfer from the region amounting to over \$203 billion between 1982 and 1989. At the same time, there was a major flight of capital totalling an estimated \$110 billion for the period 1980-87.¹ The magnitude and effects of the crisis have, of course, varied from country to country, and so have the policy responses. But significantly enough, not one single country escaped the crisis. Not one was able to avoid its harsh remedy: structural adjustment programs.



CIDA Photo: Pat Morrow, Peru

Harsh economic times have forced many in the cities to find work in the informal sector, laboring long hours for low wages.

TOUGH ECONOMIC REFORMS AND THEIR SOCIAL COSTS

Technically, structural adjustment policies typically include three elements: first, policies to cut demand, so as to lower imports, improve the trade balance and reduce the budget deficit; secondly, policies to enhance the allocation of resources, so as to increase the production of exports and of substitutes for imports; and thirdly, policy reforms designed to strengthen the long-run efficiency of the economy.²

In the first category, adjustment policies almost invariably translate into sharp reductions in state subsidies for food, transportation and other basic consumer needs and controls over domestic lending. In the second category, policies which promote better prices for farmers are designed to boost agricultural production, while the exchange rate devaluation is intended to boost national productivity, that is, to export more and import less. In the third category, a typical adjustment package includes reforming financial markets and increasing interest rates, so as to reverse the flight of capital and stimulate domestic savings and investment.

While adjustment and stabilization programs have reduced structural imbalances, they have also constituted harsh economic medicine for much of the population. The introduction of severe austerity measures plunged most economies into a steep recession. Overall, the adjustment process has had an uneven impact on different segments of the society, falling disproportionately on the poor, the young, the aged and on women, forcing a majority of them to end up in the informal sector of the urban economy, working as street vendors, day laborers and the like. During the '80s, an estimated 63 per cent of Brazilian workers in the informal sector earned less than the equivalent of the legal minimum wage! Such conditions, say social workers, are forcing a large number of the region's youth — especially in urban centres — into delinquency, drug trafficking and ultimately terrorism.



CIDA Photo: Virginia Boyd, Guyana

RESOURCES UNDER STRESS

The Americas has some of the world's most precious natural resources. It is rich in oil and minerals, has fertile soils and lush forests, and bountiful sources of water — and their potential is considerable. Yet, many countries face serious resource constraints. Increasingly, the region is suffering from environmental degradation and pollution, as a growing number of people and industries strip the land, contaminate the water and pollute the air.

Many of the regional and local environmental problems are the result of ill-planned development, lack of emission controls, or other forms of private and public mismanagement; others arise from the combination of poverty, population pressures and land tenure problems. But if factors differ, the

results are invariably the same: resources are being exhausted or consumed at a rate that far outstrips their capacity to regenerate. In the end, the very resource base upon which the region's economic activity rests is being impoverished.³

ENERGY AND ENVIRONMENT

A key issue likely to influence the region's economic development is the energy sector. With the growing anguish over the greenhouse effect and the thinning ozone layer, problems relating to the energy development in the Americas are bound to increase. Hard choices will have to be made. The region's main energy sectors include oil and hydro-electricity.

Oil is known to increase the greenhouse effect. But the alternative also

carries its costs. More than 80 per cent of hydro-electric potential is in waterways located within the tropical forest regions. Any large hydro-electric projects are bound to place additional pressures on the region's tropical ecosystem.



CIDA Photo: Patricia Baeza, Costa Rica

Cachi Dam in Costa Rica produces electricity for the capital city, San José, and Cartago.

CONFRONTING ECONOMIC CHALLENGES

The 1980s brought havoc to the Americas, as many countries lost the momentum of development gained in the 1960s and 1970s, and standards of living declined sharply.

This chapter looks into the historical roots of the debt crisis and examines seven cases — Costa Rica, Nicaragua, Bolivia, Peru, Jamaica, Guyana and Haiti — each of which seems to stress a different aspect of the nature of reforms. In most cases, adjustment has turned out to be a lengthy and difficult process, where social costs have been high, but ultimately for many, it has had positive results.

ROOTS OF THE CURRENT ECONOMIC CRISIS

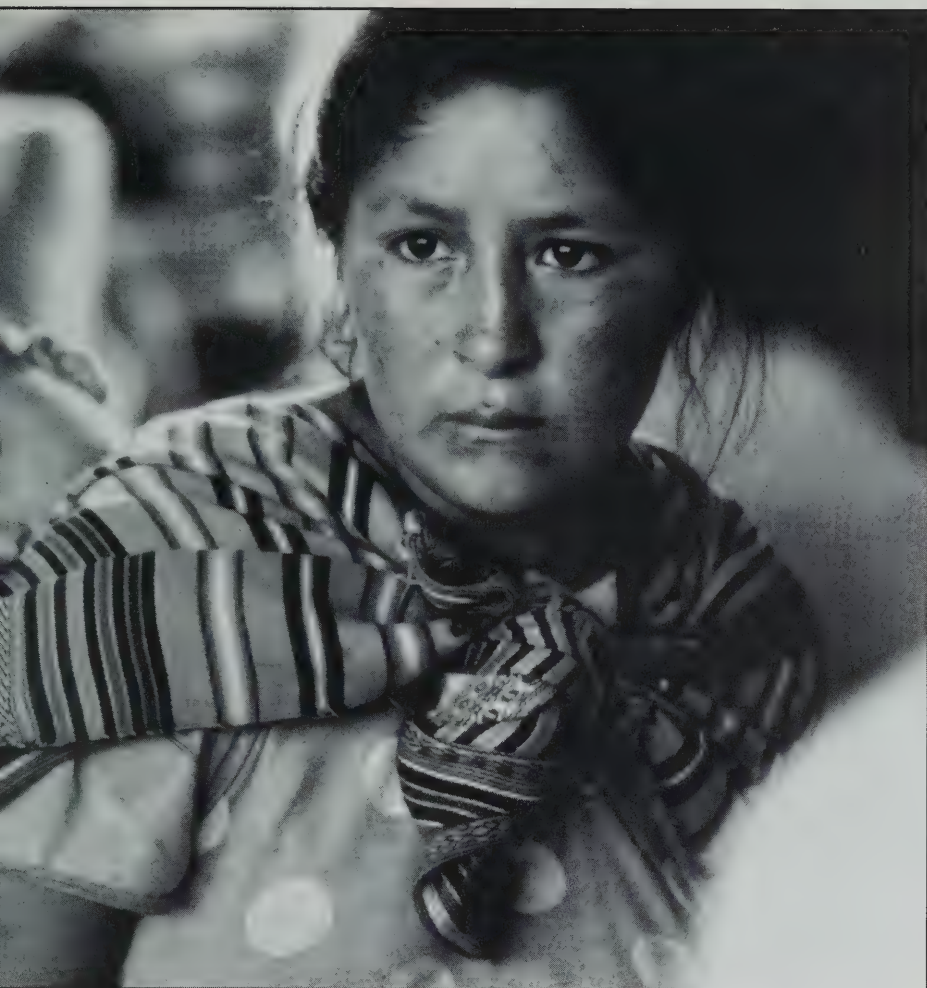
The individual countries of the region had only slow development prior to World War II. But the past four and a half decades have brought major changes to the level of economic activity in the region. Between 1946 and 1980, Latin American and Caribbean economies registered a GDP

annual average growth of about 6 per cent, compared to 4 per cent among the OECD countries. The region's real per capita GDP more than doubled during this period.¹ The Americas were, thus, developing much faster than the wealthy, industrialized economies. The growth model, applied by most countries throughout this period, was built on three poles: an export sector based primarily on commodities, an industrialization program founded on import substitution and focusing on the domestic market, and growing investment in the public sector. Popular policy options included trade barriers, nationalization of foreign enterprises, domestic price controls and subsidies, and a general distrust of foreign investment. Initially, the growth model brought prosperity to the region, although the benefits were distributed unevenly as the middle and upper classes profited disproportionately. Nonetheless, economic progress did



CIDA Photo: Dilip Mehra, Grenada

A Grenadian worker harvests husks that contain cocoa beans. The beans will be roasted and ground into a powder from which part of the fat is removed.



CIDA Photo: Ellen Tolmie, Peru

trickle down to the poor in the form of employment opportunities, subsidized food and transportation for the urban population and steady improvements in standards of living.

Ironically, the roots of the region's problems can be traced back to the policies that contributed to economic growth and prosperity in the first place. These included heavy external borrowing, inward-looking development strategies, and inadequate adjustments to external shocks. A collapse in the price of their main exports and economic mismanagement further reduced any hope for recovery.

External borrowing had been made possible by the fact that in the 1970s, large quantities of cheap foreign capital, largely recycled petro-dollars, were loaned to the countries of the Americas, on a scale which often exceeded the absorption capacity of these economies. Neither the lenders nor the borrowers seemed concerned

at the time - after all, the region had a good credit rating. By the early '80s, more than half of the \$700 billion external debt of the developing world was owed by the nations of Latin America.

Governments used these funds to expand their role and ownership in most aspects of economic life, spending heavily on economic development projects and consumer subsidies that reduced the prices of food, energy and transportation. By the late 1970s, in Mexico, public expenditures had risen to close to half of GDP. In Argentina and Venezuela, they were well over half, while in Peru, public expenditures jumped from 24 per cent of GDP in 1970 to 60 per cent in 1982. As a result, state bureaucracies mushroomed. Unable or unwilling to generate enough tax revenues to finance these programs, governments kept on borrowing heavily abroad from commercial banks. Rising public sector

deficits and excessive wage claims created inflationary pressures. In industry, import substitution and the increasing number of public enterprises led to closed, rigid and high-cost structures which hindered growth: domestic markets were limited and so was the capacity of the societies to subsidize these industries.

CENTRAL AMERICA

Strong economic growth in the 1960s and 1970s led to greater social and economic disparities, as most of the benefits ended up in the hands of the upper and middle classes. The contrasting wealth and poverty turned the region in the late 1970s into a breeding ground for civil and military conflict, and precipitated a crisis of violence, social upheaval and economic decline from which some countries are only now slowly emerging. Political and economic instability resulted in a dramatic decline of intra-regional trade and capital outflows. The recession and the debt crisis hit them even harder. The reliance on a few agricultural exports, for which they got rock-bottom prices, has caused great hardship to all countries. No Central American economy has been able to regain economic levels achieved in the 1970s.



CIDA Photo: Patricio Bacca, Costa Rica

Coffee is one of Costa Rica's primary exports.



CIDA Photo: Patricia Baeza, Costa Rica

Although the pace of economic reform has generally been uneven and slow, most countries have adopted adjustment policies. The reform process has reduced state deficits, and improved export performance, especially from non-traditional exports. The recent increase of intra-regional trade provides further grounds for optimism.

COSTA RICA

Costa Rica continues to be the exception in Central America. With its stable democracy and its successful adjustment program, the country has averaged a GDP growth rate of 4 per cent for the last six years, the strongest in the region.

A lot of Costa Rica's success, say experts, has to do with its high degree of social consensus on economic policy matters, its commitment to human resource development, and the fact that the debt crisis hit the country earlier. In 1982, the government intro-

duced a recovery program. Severe fiscal constraint was implemented, and price controls were used to reduce inflation. But more importantly, Costa Rica introduced a Social Compensation Program to stop the decline in real wages, provide school meals, emergency job creation, extra funding to public housing, and land reform.

**First and foremost,
investments in
human development
are most useful in
times of crisis.**

These measures helped to cushion the poor from the blow of a severe austerity program. Overall, sound economic and social policies have led to a smaller decline in GDP per capita, relatively low inflation compared to other countries in the region, and innovative policies to promote technological development and preserve biodiversity.

Finally, Costa Rica's debt management was exceptional, enabling the country to reduce by two-thirds its external obligations. After several years of stabilization and adjustment efforts, economic growth has returned to the economy, but per capita GDP still remains below 1980 levels. Other scars of the recession include underemployment, housing deficits and growing pockets of poverty.

Several lessons can be drawn from the Costa Rican experience, but three bear special significance for its neighbors. First and foremost, investments in human development are most useful in times of crisis. The country's long-standing history of progressive social policy, its emphasis on a well-developed institutional base, its egalitarian approach to income distribution, as well as its achievements in education and health care — among the most impressive in the Americas — have helped the country adjust to changes triggered by the 1980 recession. Second, debt-service reductions, when used efficiently, can help finance investment and growth. Third, the role of the private sector can be decisive to a recovery program. Support for privatization and private sector initiatives has boosted non-traditional exports, which have increased 48 per cent between 1982 and 1988. They now represent more than half of all export earnings.

NICARAGUA

To fully understand what turned out to be the most serious crisis of Nicaragua's history, it is important to go back to the late 1970s. The Sandinistas came to power after a popular uprising, which forced the Somoza family, who had ruled the country for over four decades, to flee. The Sandinistas immediately nationalized large holdings, as well as banks and foreign trade. They created state farms and promoted agricultural cooperatives, greatly expanding the state bureaucracy in the process. In addition to the cost of the civil war, the US trade embargo and blocking of international loans fur-

ther hindered economic development. Thus, after the first three years of growth, the Nicaraguan economy began to shrink, while domestically, the government devoted over 50 per cent of the national budget to defence and directed a great part of the productive population into the war effort. The early years of the Sandinista regime saw impressive gains in almost all social sectors. But several years of civil war and economic ruin wiped them out.

Per capita output fell by one-fourth since 1980, and private consumption dropped by almost 70 per cent. With export crops down 40 per cent and the manufacturing sector down 84 per cent, Nicaragua's imports in 1988 were four times larger than its exports. Hyperinflation in the last years of the Sandinista regime reached 30,000 to 40,000 per cent! External debt grew to \$10 billion, the highest in Central America.

To make matters worse, the country was severely hit in October 1988 by Hurricane Joan, causing some \$800 million in damages, and again by severe drought during the first half of 1989. GDP declined by 8 per cent that year, and by another 5.5 per cent in 1990, the seventh consecutive year of negative growth.

In February 1990, after eleven years in power, the Sandinistas were defeated in the presidential elections by a coalition



Faced with extreme hyperinflation, Nicaragua's people are struggling in unprecedented poverty.

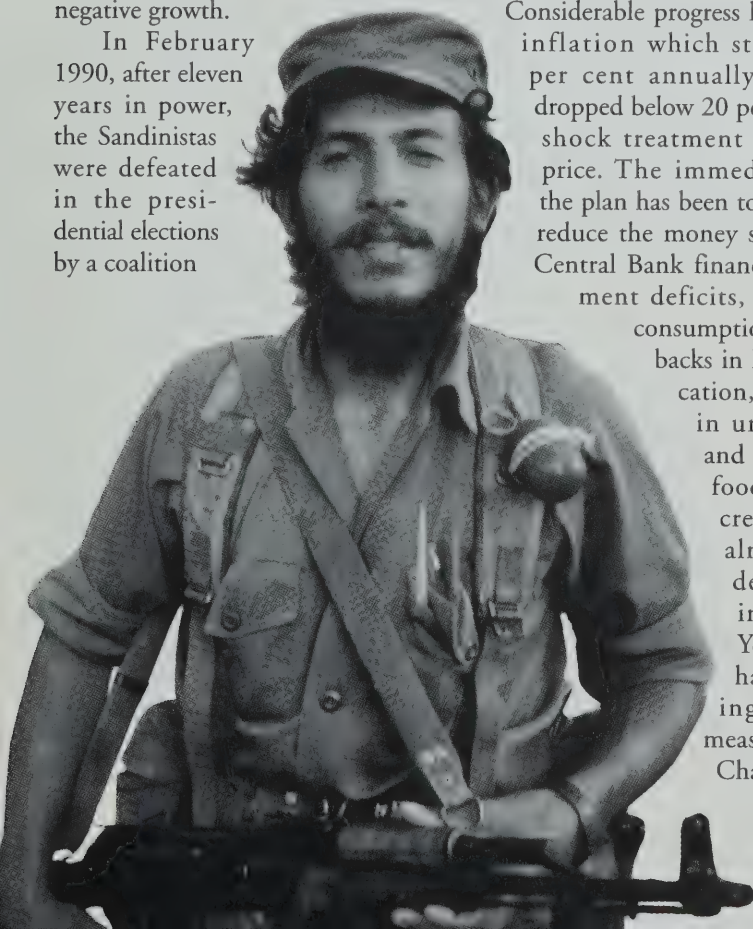
headed by Doña Violeta Chamorro. Since it took office, the new government has been attempting to bring order to its finances, by introducing a tough adjustment program. Considerable progress has been made: inflation which stood at 10,800 per cent annually in 1990 has dropped below 20 per cent.² But the shock treatment carries a high price. The immediate impact of the plan has been to cut real wages, reduce the money supply and halt Central Bank financing of government deficits, thus reducing consumption. Recent cut-backs in health and education, a major surge in unemployment, and the removal of food subsidies are creating levels of almost unprecedented poverty in the country. Yet, despite the hardship resulting from these measures, President Chamorro appears

to maintain her popular support. The main reason for this, say experts, is that the population is fed up with hyperinflation, and is willing to go along with the harsh remedy. Even the Sandinistas, now the Opposition, are backing the austerity plan.

Despite these efforts, the country faces substantial trade deficits and even larger current account deficits in the coming years. There is little doubt that Nicaragua will need assistance from the international community to carry through its reform package.³

SOUTH AMERICA

Despite being crippled by heavy debt loads, South America appears to be recovering from the shocks of the 1980s. All the economies are undergoing austerity and recovery programs. In many countries — especially in Venezuela, Argentina, Peru and Guyana — governments are selling off state-owned enterprises. Bolivia is entering its sixth year of economic stabilization and democratic rule.





Guyana's economy has spiralled downwards for almost two decades.

Incomes remain low, but business appears to be picking up. Chile, newly returned to democracy, is abolishing trade barriers and leading the move toward free trade among southern countries. Provided these economies maintain their commitment to the reform process, South American countries can expect sustained growth in the coming years. The future could be even brighter, if the region can solve successfully an old and nagging issue... the debt problem.

BOLIVIA

Bolivia is the poorest country in South America, and, with Guyana and Haiti, one of the poorest countries in the Western Hemisphere. It has the second lowest per capita GNP, and the lowest life expectancy. Its infant mortality rate is second only to Haiti, and almost double that of El Salvador and Guatemala, due in part to the harsh Andean climate.

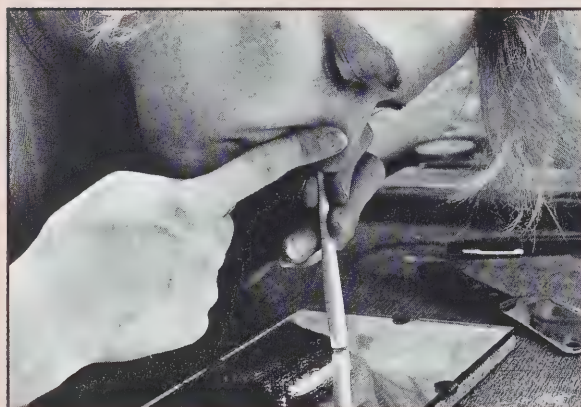
The origins of the modern Bolivian economy can be traced to the Revolution of 1952, which swept away feudal landlords and mine owners. In the following years, state bureaucracy grew, as did a strong and independent military and a powerful labor union. By the early 1970s, the Bolivian state had become the major economic actor.

It was the owner of banks, mines, and airlines as well as oil and electrical companies. The state had also become

the major partner in agriculture and agro-industrial enterprises and, as the main employer, it intervened heavily through tax rates, pricing policies and subsidies to state enterprises.

Meanwhile, a sequence of governments shifted the thrust of economic policy back and forth. While some sought to promote economic growth through subsidies to the private sector, others tried to use the state directly to redistribute income and benefits to the poor and to the workers. In 1981, Bolivia's inflation rate was 29 per cent, roughly the same as it had been for many years. By 1985, the annual inflation rate had skyrocketed above 12,000 per cent. The hyperinflation underlined serious financial imbalances and the urgent need for an economic adjustment program. That same year, the government implemented economic reforms, which consisted mainly of steep budget cuts,

Coca, the green gold of the Andes



CANAPRESS; David Hoffman

more lucrative than any food crop and it accounts for up to 90 per cent of the income of Bolivia's estimated 60,000 coca farmers. The plant offers a quick escape from poverty: it is a particularly good perennial crop, producing its first leaves after nine months, and yields three or four harvests a year for about 20 years. In less than 10

The past decade has seen an explosive growth in the cocaine industry. In the past few years, the *dama blanca* has replaced heroin and marijuana as the most profitable drug business. About 95 per cent of coca production is concentrated in just three countries — Colombia, Bolivia and Peru.

In the Andes region, the cocaine industry generates between 500,000 and 1 million jobs. In Bolivia alone, it is estimated that 300,000 people are employed directly by the business; up to 20 per cent of its 7.3 million population may be linked to the cocaine economy in providing goods and services. For the farmers, coca production is 10 to 18 times

years, production of the leaf tripled, making Bolivia the world's second largest supplier after Peru.

In Bolivia, this illicit business generates between \$250-\$300 million to the country's reserves each year — an amount equal to half of all other export revenues

**In Bolivia,
drug profits
represent
50% of
total export
revenue.**

combined; in Peru, drug profits represent 20 to 30 per cent of legitimate export revenues, and in Colombia 10 to 20 per cent. But it is in Colombia where cocaine has had the most dramatic impact. While it is not certain as to how many people or how much money is involved, some estimates put cocaine profits at US\$1,000 million to \$2,000 million or 3 per cent of Colombia's GDP.

coupled with tax increases and exchange rate reform. Import liberalization and financial deregulation policies were also introduced. By 1987, the inflation rate had fallen dramatically to 15 per cent, and has remained low ever since.

But the social costs of the crisis and the austerity program are high. Living conditions have plummeted even further, and poverty on the Altiplano is among the most extreme in Latin America, with unemployment estimated at 20 per cent since 1986 and under-employment close to 60 per cent.⁴ No wonder coca production surged: in the early 1980s, coca was the only commodity that could keep pace with spiralling inflation. The reason behind the cocaine trade is partly opportunity — cocaine addiction in the lucrative markets of the US and Europe — and partly the dire need of desperately poor Bolivians whose living conditions worsened over the 1980s.

Bolivia's adjustment program is often praised as a success, but so far its achievements have brought only economic



CIDA Photo: Ellen Tolmie, Peru

Countries are trying to maintain health programs despite drastic cuts in social spending.

stability in the aggregate sense. However, more recent signs indicate greater growth fuelled by invest-

PERU

Peru's erratic economic policies are largely to blame for the country's decline, say experts. Throughout the 1980s, Peru, unlike Bolivia, avoided adopting adjustment policies altogether, with disastrous consequences. Living standards have dropped dramatically, as real earnings tumbled by over 80 per cent. According to some estimates, over 55 per cent of the population now live below the poverty line, unable to meet minimum daily nutrition requirements. The child malnutrition rate averages 38.5 per cent, the second highest in Latin America. The outbreak of a cholera epidemic in February 1991 — the first in Latin America since the turn of the century — underscores the extent to which social conditions in Peru have declined. In May, 1991, it was reported that as many as 200,000 people had contracted the disease and that 2,000 had died.

In the summer of 1990, a severe adjustment program, aimed at tackling the causes of hyperinflation, was implemented by the incoming



A vendor displays her wares at the Copacabana market in the Titicaca region of Bolivia.

Fujimori government. Experts say it is the harshest economic stabilization program ever applied in Peru or, perhaps, the continent. The fiscal deficit was reduced, and subsidies were cut back, as the prices of petrol and public services jumped by as much as 3,000 per cent.⁵ The new measures have seriously affected employment levels in about every sector of the economy, and all indicators point to a worsening of



A powerful car bomb exploded in July, 1992, destroying this Lima building. The terrorist group *Sendero Luminoso* claimed responsibility.

the situation in the coming months. To make matters worse, the cholera epidemic — which the government has been fighting tenaciously and, to some extent, effectively — has already inflicted severe damage on the export trade. In late March, the European Community decided to ban the import of Peruvian fruits, vegetables and fish, valued at some \$250 million. Experts predict that as much as \$700 million, or almost one-fifth of total exports in 1990, could be lost as a result of the epidemic. Last but not least, tourism revenues have dropped by more than

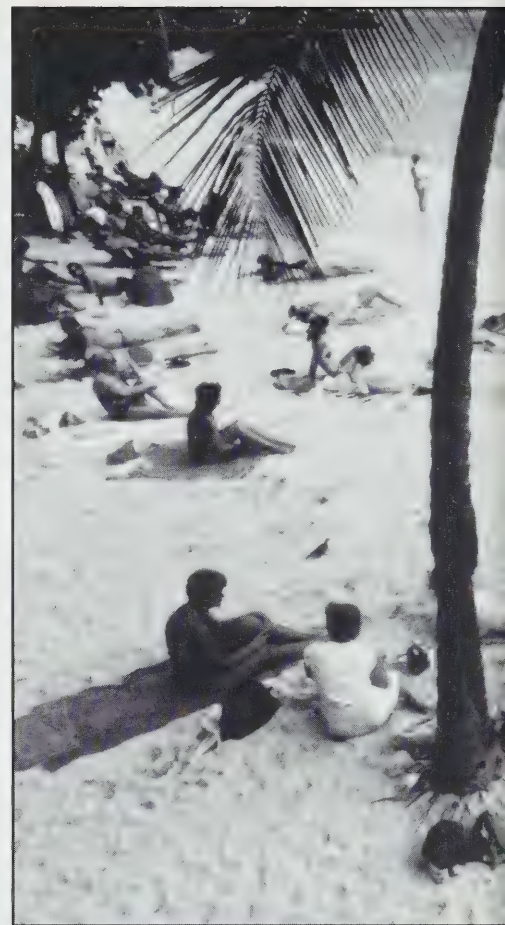
\$70 million since the cholera outbreak.⁶

Two other realities are shaping Peru's course: the rise of the coca economy and terrorism. These phenomena are related to each other and to a larger, more pervasive phenomenon: the steady erosion of civil authority. Since the early 1980s, the insurgency of two terrorist groups, *Sendero Luminoso* (Shining Path) and the *Movimiento Revolucionario Tupac Amaru*, has seriously undermined Peruvian society. The death toll in the guerilla war, over the last decade, has claimed some 22,500 lives, with damage estimated at over \$18 billion. And the subversive activities of these groups do not show any sign of subsiding. Over the years, the failure of the government and the military to contain the guerilla activities has led to the emergence of para-military death squads, adding to the level of violence in the country.

These mounting threats burst into the political realm when in early April, with military support, President Fujimori disbanded Congress and the judiciary and suspended the constitution. He portrayed his executive takeover as a kind of pre-emptive strike against chaos and terrorism. The crackdown, he said, was necessary to halt corruption in government, to impose free market economic reforms and to strengthen the army's hand in combating drug traffickers and a 12-year old guerilla insurgency.

His pre-emptive move, however, drew worldwide condemnation. Initially, he ignored the outcry. But under growing international pressure, President Fujimori announced a July plebiscite on his decision to dissolve the nation's congress. A referendum on constitutional reform will follow in November, and congressional elections are to be held by February.

One immediate effect of the takeover was to isolate once again a government that had just begun to re-establish credibility within the international financial community. This blow comes at a time when Peru's gross domestic product has shrunk in two of the past three years, and more than half the country's people live in poverty.



THE CARIBBEAN

Separated from the mainland, the Caribbean islands hold most of the classic attributes of developing countries. With over 30 million people, the area has the highest population density of any region in the Americas. The lowest level of development is in Haiti. It is among the poorest countries of the world, and its development challenges are similar to that of many African states. At the other end of the spectrum is Puerto Rico, officially a Commonwealth of the United States. Supported by a large industrial base, the country's economy enjoys the highest standard of living in the region. Between the two extremes lies the bulk of the islands of the Caribbean. Their development rests on a small number of agricultural export commodities, such as sugar and bananas. As a result, their economies are vulnerable and often fluctuate between alternating periods of prosperity and economic



CIDA Photo: Dilip Mehta, Barbados

unemployment are drawing many into informal-economy activities, where wages are low. In addition, the debt problem has continued to be a major constraint. Jamaica's foreign

In recent years, the danger of further marginalization of the region in the global economy has led Caribbean countries to explore regional integration.

debt increased nearly threefold between 1980 and 1987, and debt service had risen from 26 per cent of the government budget in 1980 to 40 per cent in 1987. At the same time, health and education expenditures fell in both absolute and relative terms, as a greater share of the shrinking budget was dedicated to debt service. With per capita GDP 20 per cent below 1974 levels, social indicators and the standard of living have declined sharply. Jamaica's way out is to pursue, with the help of the international community, the hard discipline of adjustment.

depression. Over the past 20 years, tourism has grown into a major industry in many of the smaller islands. But tourism is a mixed blessing, providing revenue for one sector of the society, while the flow of tourists from wealthy countries underscores the poverty of the majority of the region's residents. On the positive side, most of these Caribbean countries have stable, democratically-elected governments. Freedom of expression is widely respected and strong judicial systems are firmly entrenched.

In recent years, the danger of further marginalization of the region in the global economy has led Caribbean countries to explore regional integration, the only real solution to the region's problems. Market conditions now facing virtually all the region's current and potential exports of goods and services are highly competitive and, according to experts, are likely to be even more so in the next few years.

JAMAICA

For Jamaica, the need for economic adjustment has become chronic. Current efforts are the latest in a sequence that began in the late 1970s. Gross income per capita peaked at the midpoint of that decade and fell by over a third by the middle of the 1980s, as bauxite, sugar and banana exports dropped sharply. In a decisive break with past policy, a more growth-oriented policy was adopted in mid-1986. By the end of 1987, Jamaica's economic indicators began to change. Real per capita growth was positive for the first time in 15 years. Inflation, which had been kept down to 10 per cent in 1986, fell to 8 per cent in 1987. The change in terms of trade and the new policy made a major difference, especially in diversifying the country's export base.

Despite progress, major problems have yet to be solved. High levels of

GUYANA

In Guyana, which was once one of the richest countries in the Commonwealth Caribbean, the challenges are both political and economic.



CIDA Photo: Virginia Boyd, Guyana

Guyanese workers package rice — one of the growth potentials for domestic consumption and export markets.



The country is composed of two major ethnic groups: the Afro-Guyanese, who represent 40 per cent of the population, and the majority Indo-Guyanese. Ever since independence in 1966, Guyanese politics have been marred by friction between the two communities. Furthermore, despite some improvements to the political and civil rights situation in recent years, limits on democratic practices still persist. A report tabled by the Canadian Parliament's Standing Committee on Human Rights recently recommended that, "the Government of Canada consider making any future ODA to Guyana conditional on the holding of a free and fair election by 1992."

From the mid-'60s to the mid-'80s, the economy was extensively socialized and huge debts accumulated. With the recession, the economy nearly collapsed, as exports dropped 55 per cent in value, imports rose by 66 per cent and production in all sectors fell back. The overall total of external debt jumped to nearly US\$2 billion, the highest debt per capita ratio in the Western hemisphere. The result translated into capital flight, an extensive parallel economy and the emigration of the best young people. A 20 per cent drop in GDP between 1977 and 1987, and a 30 per cent fall in per capita income in the same period made structural adjustment inevitable.

In 1989, the government introduced tough economic measures, including a 70 per cent devaluation of the national

currency and elimination of state subsidies. Virtually overnight, food and fuel prices rose 200 per cent. Successive strikes plunged the country into unrest, as greater hardship struck the population. The country's social and health sectors are in a state of crisis: education has been hard hit by the mass resignations of civil servants in recent years, while health indicators show a serious decline, especially among the poor, despite an effort by the government to devise a social program to relieve the most vulnerable groups.

On the positive side, the agricultural sector, given appropriate macro-economic and sectoral policies, has considerable growth potential, both for domestic consumption and for the export market. The resources sector,

particularly mining, has already started to feel the positive effects of the economic recovery policies, in the form of increased direct investment and employment. Despite difficult circumstances, the government seems committed to continuing the much-needed reforms to reduce structural imbalances and fiscal deficits.

Ultimately, the prospects for sustained recovery hinge on solving the infrastructure constraints, on giving priority to human capital investment and on increasing the productivity and output of key industries — rice, sugar and bauxite.

HAITI

Over the past decade, the people of Haiti have suffered major losses in their standard of living. Production has declined markedly in all sectors, followed by resulting high levels of unemployment. Failure to sustain economic growth has led to widespread poverty and malnutrition. Per capita GNP is now at US\$350, the lowest in the western hemisphere. The average income of Haitian peasants, comprising 70 per cent of the work force, is less than half the national average and is steadily declining.

Faced with economic decline, Haiti started to pursue reform during 1986 and 1987 which began to have a positive effect on the economy. But in mid-



1987, a series of political crises erupted. Economic growth since then has been plagued by social and political upheaval, layoffs, uncertainties for private investors, shortfall in public revenues and a curtailment of external assistance.

**The environment,
say ecologists, has taken
a brutal beating.**

The election in 1990 of President Aristide, Haiti's first democratically elected leader, provided a window of opportunity for the country to finally move towards sustained social and economic progress, with the assistance of the international community. But the victory was short-lived. Seven months later, on September 30, President Aristide's government was overthrown by a military coup. The Organization of American States responded by organizing economic sanctions against the Haitian junta. A hemisphere-wide economic embargo was imposed as a way to restore Haiti's elected leader.

Even in the event that Haitians settle their political differences soon, the country still faces an uphill battle. Coffee, cocoa and sugar, major sources of past agricultural growth, face unpromising prospects. Meanwhile, food is running short and domestic prices have soared, industrial exports have declined, and tourism, previously an important source of foreign exchange and employment, has completely dried up. At the same time, Haiti's run-down infrastructure has been left largely unattended.

Haiti's major development challenges include achieving a minimum GDP growth rate, restoring the confidence of the private sector, and creating a favorable macro-economic environment that will reduce inflation and imbalances in external accounts. In terms of sectors, agriculture, transport and energy are badly in need of investment, while social sectors such as family planning, health and education have been hard hit by government cutbacks.

Most old problems, thus, remain and new constraints are emerging. Chief among them is the extent of environmental degradation. The environment, say ecologists, has taken a brutal beating. To make up for the lack of propane gas and kerosene triggered by the embargo, peasants have slashed away at trees, even mangoes, wind-breaks and the mahoganies that shade the coffee crop. Experts estimate that the country will be a virtual desert in 20 years if conservation measures to reduce chronic deforestation and soil erosion are not rapidly introduced.

SOME RECENT POSITIVE TRENDS

There is little doubt that the '80s represent a lost decade as far as development is concerned. But the picture, according to reformists, is not all that

The '80s also initiated a radical change in the way governments manage the economy and approach the region's increasingly complex problems. Fiscal discipline was introduced, as most states recognized the burden imposed by large public-sector deficits. Privatization went into full gear, as governments withdrew from the business of producing goods and services. Several reasons prompted this policy shift, the most important being that state enterprises had become largely inefficient. In the 1980s, Mexico closed or privatized more than half of its 1,155 state companies. The massive scale of Mexico's effort may be unique in the Americas, but virtually every country has an active program of privatization of state enterprises. This move towards privatization has been accompanied by a series of fiscal reforms. Seventeen of the region's 25 countries have introduced the value-added tax, making it a central part of most large-scale tax reforms.

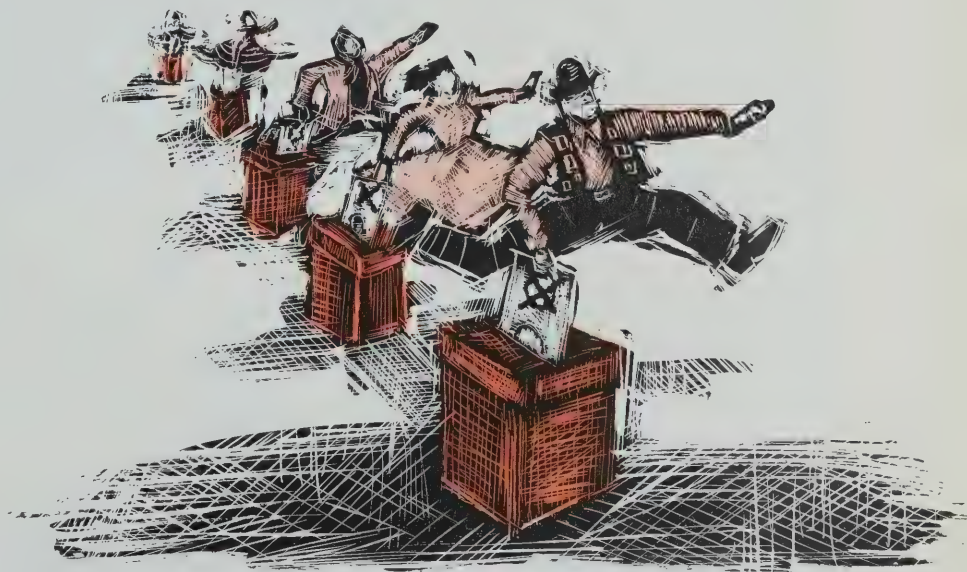


Illustration: Michael Harrington

bleak, as they point to some positive trends in a number of areas. For one thing, these years marked the beginning of a new era in the region's integration with the rest of the world, and a reversal of 50 years of development policies. Essentially pragmatic, the new consensus stresses the need for a more outward orientation of the region's economies, with greater emphasis on the importance of being competitive in world markets.

In general, the decade has enabled most of the region's economies to lay down the groundwork for the recovery expected in the 1990s. But it is in the political realm that the greatest change took place. Indeed, of all the events that have shaped the '80s, none seem more promising than the distinct trend towards democracy, and the emergence in the region of more pluralist and participatory political regimes.

SOCIAL DEVELOPMENT IN PERSPECTIVE

As the economies boomed from the 1950s to the late 1970s, so did many of the indicators of social development. In fact, progress in the Americas during that period was greater than in any other developing region in the world.

PROGRESS AND SETBACKS

During the '50s, '60s and '70s, standards of living increased as employment rose and health and education programs were established. In parallel, the social structure in Latin America was undergoing extraordinary transformation. The authoritarian role of the Catholic Church —

historically dominant in Latin American society — diminished, and it started to become a voice for social change. The middle class expanded and the urban working class emerged as a major player in the political arena. These social forces influenced the type and measure of progress made in the more quantifiable areas of social development such as health and education.

With the economic crisis of the '80s, however, came a relative

decrease in spending on social programs. Infant mortality, life expectancy, school enrolments and literacy levels were bound to be greatly affected by the economic crisis. This sliding back is a universal trend but it is tragically most severe among the higher risk groups most affected by the decrease in employment opportunities, the drop in real wages and the reduction in public social services.

HEALTH AND WATER: GAINING SOME GROUND

Perhaps the single most important regional health issue is the provision of safe water. The outbreak of cholera in Peru in 1991, which subsequently spread to many other Latin American states, emphasizes the urgency. In rural Latin America,

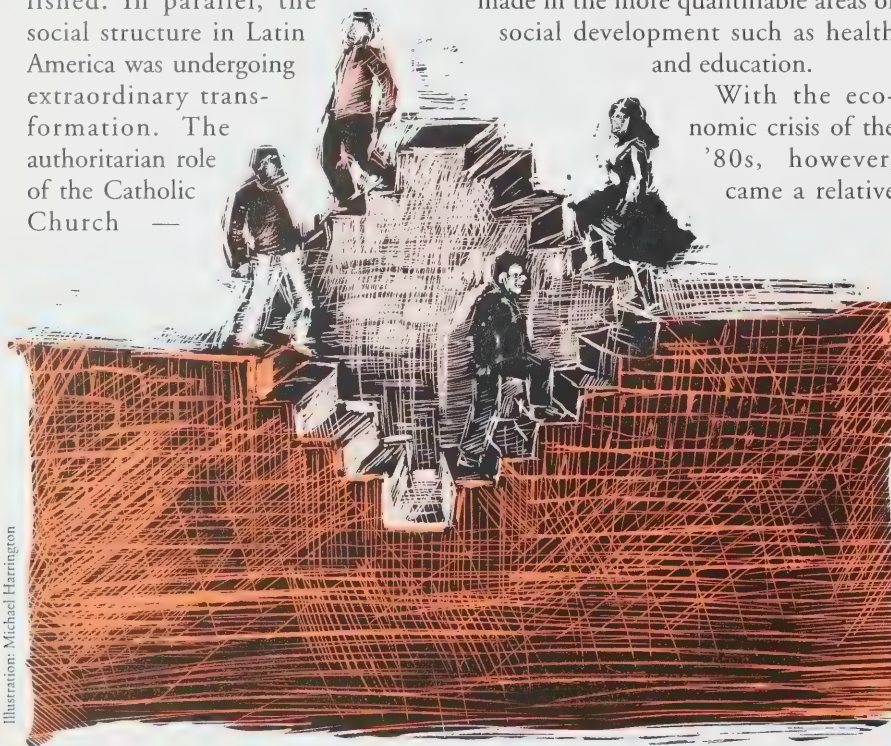


Illustration: Michael Harrington



Residents of this shanty town, Juan Pablo II, gather for a meeting about community kitchens.

CIDA Photo: Ellen Tolmie, Peru

the availability of safe water is only 45 per cent.

More and more, countries are concentrating on a comprehensive approach to health, bringing together water and sewer services, immuniza-

tion, oral rehydration, education about sanitation and nutrition, and other measures to obtain long-term, effective results. Also, there has been a general trend toward increasing the importance of community participation, which has been a key element in the success of many recent health projects. This is especially true in water and sanitation projects in urban slums and low-income areas around the cities. Some community organizations already have well-developed services and manage local resources, such as private pharmacies, milk distribution centres and day-care centres for children, oral rehydration units and temporary shelters for pregnant women.

One dynamic Central American initiative that received popular support is "Health as a Bridge for Peace." Regional projects designed alongside



CIDA Photo: Ellen Tolmie, Peru

AIDS in the Americas — mounting apprehension

In February 1992, the World Health Organization reported over 1 million new infections worldwide since April 1991. Of this number close to one-sixth live in the Americas and the numbers are increasing at an alarming rate. Two years ago, this region ranked third highest in HIV prevalence, after sub-Saharan Africa and North America. Today, the Americas and Asia each report more than 1 million cumulative cases, and have replaced North America as having the second highest number of infected adults. AIDS poses an especially menacing threat in the Caribbean, which has some of the world's highest incidences of HIV infections.

In the Americas region, heterosexual transmission has become the predominant way that the HIV virus is spread. Between 1985 and 1989, the male:female ratio of those contracting AIDS dropped from 6:1 to 3:1. The gloomy consequences of this trend means that AIDS will spread even more rapidly. In Central America, for example, there has been a 40-fold increase in the rates of reported AIDS cases in women during the past four years. Infection rates in pregnant women in Brazil and the Caribbean are also increasing. And the number of children in Latin America that have been born with HIV has already reached 10,000.

Combating the spread of this deadly pandemic requires continued intensive control programs. Education campaigns emphasize strongly that prevention is the only 'cure' for AIDS. Public messages on television and radio as well as posters and brochures try to get the message out. However, in some countries high illiteracy rates can be a matter of life and death. Poverty and social attitudes are also taking their toll on control of the disease — not only is there considerable resistance to the use of condoms, but also many people simply cannot afford them. Perhaps the biggest hurdle in combatting AIDS, especially in Brazil, is public indifference. A long history of poor health conditions has made people accustomed to living with disease.

Sources: WHO Press, November 11, 1991 and February 12, 1992.

The Courier, No. 126, March-April, 1991.

World Development, "The Future Face of AIDS", UNDP, June, 1990.

293 national projects work on seven priority areas — strengthening health services, developing human resources, essential drugs, food and nutrition, control of tropical diseases, water and sanitation, and child survival. One well-publicized result of these efforts was the temporary cease-fire annually declared in El Salvador's civil war raging during the '80s, when over 200,000 children and mothers were vaccinated. These regional approaches to health have helped the region's health sector secure its progress, despite the restraints imposed by the economic crisis.¹

BREAKTHROUGHS IN EDUCATION

Despite the decline in public expenditure on education during the 1980s, education maintained and in most cases surpassed the achievements of the previous decades. More young people stayed longer in school and attendance rates rose. Primary-school enrolments increased from 50 per cent in 1950 to over 90 per cent in all but two countries in 1985. During the same period, the proportion of young people going to high school tripled to 39 per cent. The proportion of young people attending university rose from 2 per cent to 4 per cent for the 18-25 age group.

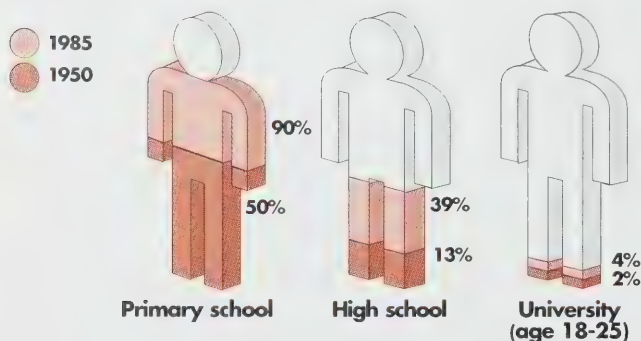
These statistics, while showing a positive trend, underline how shallow the continent's education base is if it wants to catch up with Europe and South East

Asia. The high drop-out rates everywhere are a major problem. Studies conclusively prove that the major reason for this is the incidence of poverty faced by large sectors of the population. Not only do many children have to work to make ends meet for their families but also the type of education they would receive if they attended lacks relevance to their daily activities.

Despite these drawbacks, the increasing literacy of Latin Americans is a major achievement. Literacy rates in the

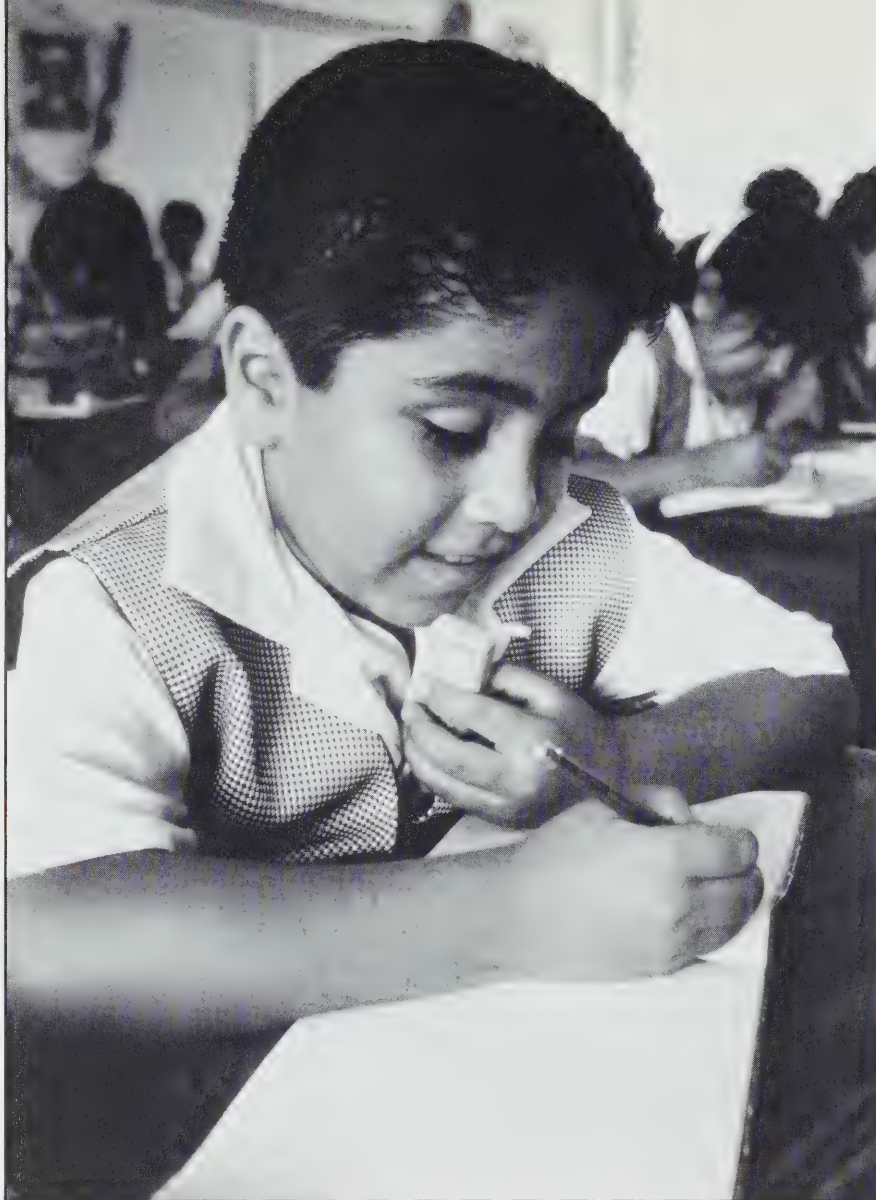
17 countries of Central and South America varied between 8 and 62 per cent in 1960. In four countries, more than one-half of the population was illiterate, and in twelve, more than a quarter. By the mid-1980s, illiteracy rates had dropped to a rough average of 15 per cent in South America and 27 per cent in Central America.

School enrolments ratio (%)



STREET KIDS

Fifty million is the staggering figure usually given for the number of street children in the Americas. Some estimates for Brazil alone put the number of homeless street children at 7 million. If these figures are true, then one third of the region's 158 million children under 15 years old are living



CIDA Photo: David Barbour, Mexico

permanently on city streets. Other estimates put the figure for truly abandoned children at 8 million worldwide. But any given figure is already meaningless — one child in this situation is already too many.

As the number of children on the street in the Americas seems to be increasing, so do the myths surrounding them. Who are they really? What do they do? What kinds of problems do they face?

Most street kids, studies show, are working children, usually boys around 11-14 years old who, while often wearing rags for clothes and probably hungry, continue to live with their families. The true street children more often than not have been driven from their homes because of family violence. They are likely to survive by the stereotypical activities such as scavenging, begging, prostitution and picking pockets, and feeling resentment and distrust of society they turn to drugs. They are the targeted victims of deliberate oppression by clandestine and sometimes official forces of law and order in many cities and their story receives increasing coverage in our media. The majority, however, would appear to be out there trying to help the family make ends meet.

Studies carried out during the 1980s revealed that the most common jobs held by child workers are street vendors, bootblacks and car minders and washers. They work on average about six days a week and probably make about one-third the legal minimum wage. In Lima, some 80 per cent of children interviewed

said they contributed a portion of their earnings to meet family expenses, and nearly two-thirds of the children claimed to be saving part of their earnings, despite their own and their families' pressing needs.

Whether these children work for a pittance or at times may make more than their parents, have a family to go to or must sleep in the gutter, all feel alienated and vulnerable. They may look tough

emotional needs of street kids. The National Movement of and for Street Children in Brazil has a network of some 400 programs and groups which try to serve the needs of these children. One approach aims at weaning street children away from their present existence by gradually re-introducing them to education and regular work patterns. Street educators who work with the children on an out-reach basis provide the

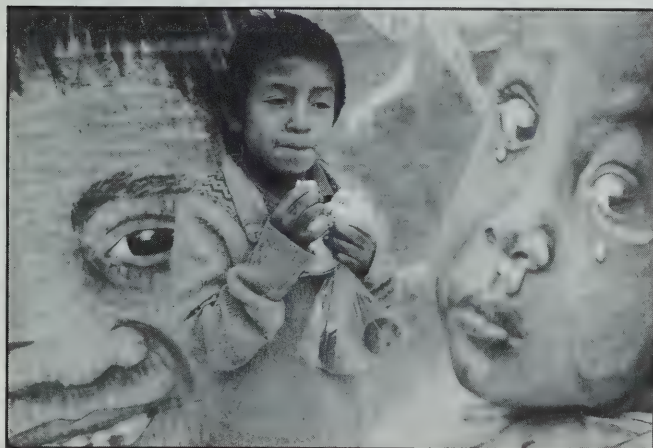


CIDA Photo: Ellen Tolmie, Colombia

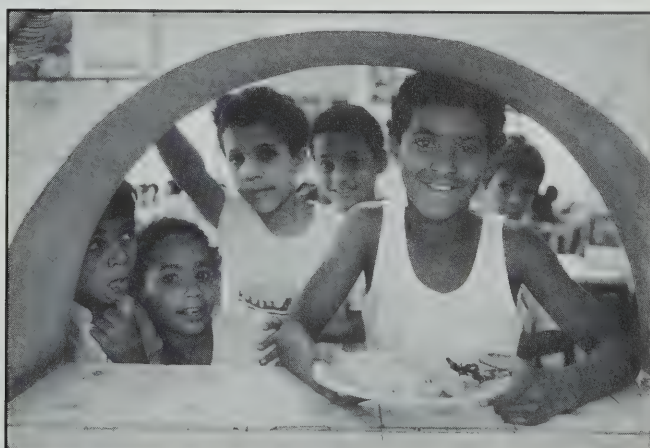
and independent, but in reality they are hungry for care. When asked, most children gave first priority to some form of emotional support — attention, affection and understanding. Food, home and work needs fell far behind.

A growing number of programs in Latin America are giving priority to the

support and trust that these children need. A more comprehensive and preventive approach is gaining popularity in countries such as Mexico. This approach is tied strongly to urban community development programs which seek to address the basic needs of poor families living in the big cities.



CIDA Photo: David Barbour, Mexico



CIDA Photo: Pierre Se Jacques, Brazil

MAJOR SHIFT IN JOB OPPORTUNITIES

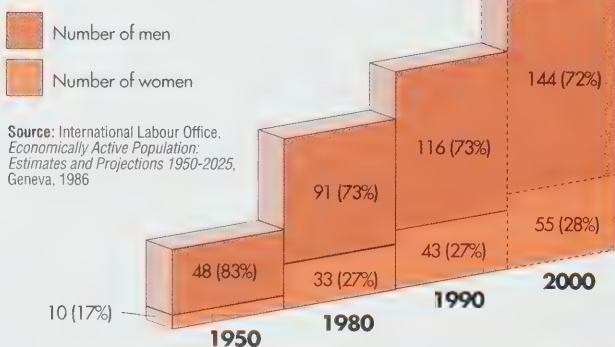
During the 1960s and 1970s the modern economic sectors grew, encouraged and absorbed skilled and productive human resources, while the number of unskilled workers diminished rapidly. Not surprisingly, the debt crisis of the '80s has essentially reversed this new employment trend.

While jobs in the formal sector have decreased sharply, there has been staggering growth in the informal urban sector. Employment in this sector served as a refuge for the mass of unskilled workers who had lost waged jobs or never had them. Yet, the problems of high unemployment and underemployment were compounded by a decrease in real wages and more real poverty. In fact, the average income in the informal sector dropped by more than 40 per cent in seven years.²

Women in the Market Place

Women of the Americas face the same problems as women all over the world: low or unequal pay, the additional burden of housework, cultural and legal discrimination, lack of credit and property. But the 1980s brought the region's women disproportionate hardship and few rewards when, in fact, they helped to cushion the effects of the economic crisis. According to a UNICEF study, low-income working women constitute an "invisible adjustment" to the crisis.

Labor force (millions)



Source: International Labour Office, *Economically Active Population: Estimates and Projections 1950-2025*, Geneva, 1986

Source: CEPAL Review, No. 40, April 1990, p.69.



Sorting coffee beans for quality control at a processing plant in Honduras.

CIDA Photo: Patricia Baeza, Honduras

In the cities, Latin America's female work force participates primarily in the informal sector as house maids, assembly line workers (clothing, textiles, electronics), and street vendors. All these jobs are normally low paid, generally below the minimum wage level, and lack social protection. Often the informal sector is their only option, since they cannot find work in the formal sector.

The female street hawker is typical of the informal sector. These women normally come from the country and often from indigenous communities. Andean peasants sell self-produced wares, food and handicrafts. Many of their activities represent an extension of their own household work; this fact explains women's strong participation in the production of clothing and food

and the sale of processed foods.

The work of low-income rural women is essential to food production and the food supply in the different countries of the region. The most significant development has been the increasing amount of

work being done by women on small farms, as men turn to other occupations. A major constraint to most of them is limited access to land ownership, since in most countries there are still legal restrictions for them to inherit land. If they do own any land, it is usually only a small plot.

In recent years, governments and especially private organizations have made a real effort to assist women through special programs. However, the scope of these efforts has been limited so far, but the production-oriented projects — in particular, small business projects — have shown women to be serious and shrewd business persons who generally make good use of the credit, technical assistance and other resources made available to them.



Not only are more women entering the workforce, they are also shifting to less traditional jobs such as air-traffic control.

CIDA Photo: Antigua, Barbuda

PEOPLE, CITIES AND THE ENVIRONMENT

Two crucial elements compose the kind of population growth experienced in the Americas: an extremely high percentage of dependent people and rapid population growth in the cities.

THE POPULATION FACTOR

These trends have major social and demographic consequences. Today, at the peak of its population growth, the Americas is populated by an overwhelming number of young people. In Central America, for example, 45 per cent of the population is 20 years old and younger. This is of critical importance since this high

number ensures continued high rates of population growth. The percentage of older people needs to be considered as well. While estimates indicate that the percentage of children under the age of 15 is declining, the percentage of people over 65 is increasing rapidly as a result of medical advances; thus the dependency ratio still remains high.

Another crucial consequence of rapid population growth is the urban explosion. The Americas is the third most urbanized region in the world, after North America and Europe. Although the urban



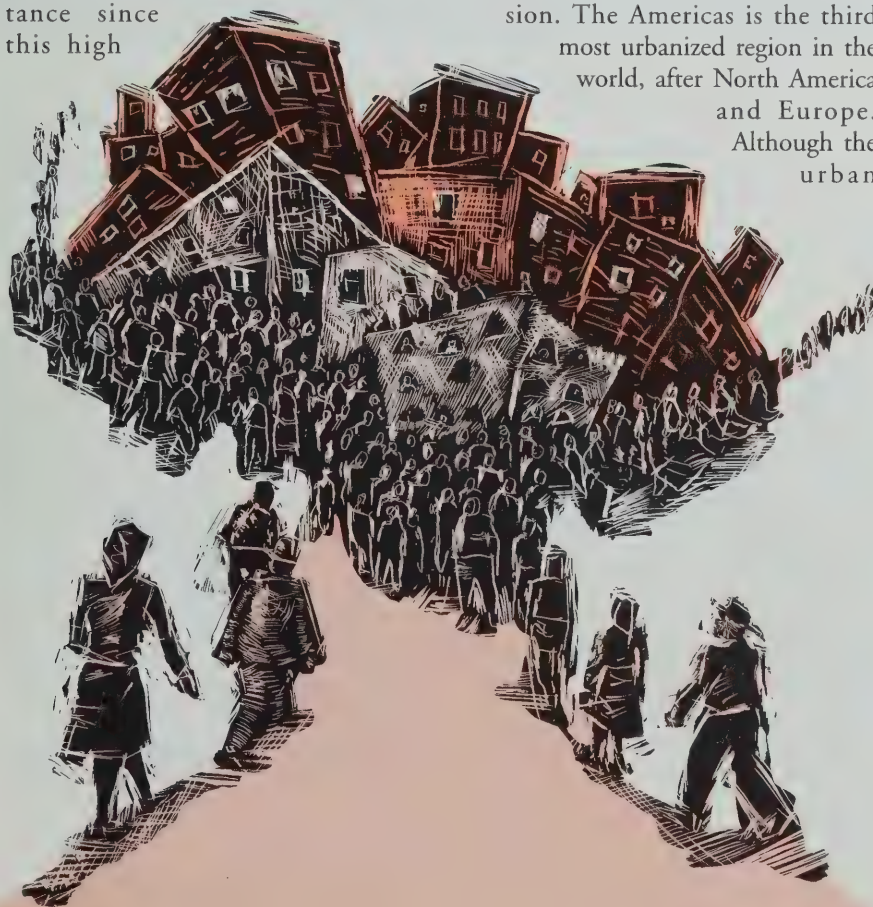
CIDA Photo: Dilip Mehta, Dominica

growth rate has declined from 4.5 per cent in 1950 to 3.2 in 1980-85, most of the urban populations will continue to live in the bigger cities and, in some countries, a single urban centre.

The high urban growth rate results from two processes at work: natural increase and rural-urban migration. Natural population increase is responsible for much of the speed at which cities are expanding. In some of the larger urban centres, the population is doubling every 10 to 15 years, either expanding the city's size or filling up the nooks and crannies of the inner city. And this is not likely to change, since in many countries the proportion of people of child-bearing age remains relatively high. In addition, factors such as unfavorable conditions in the countryside, and the concentration of land ownership in a few hands, contribute to the swelling numbers moving to the cities.

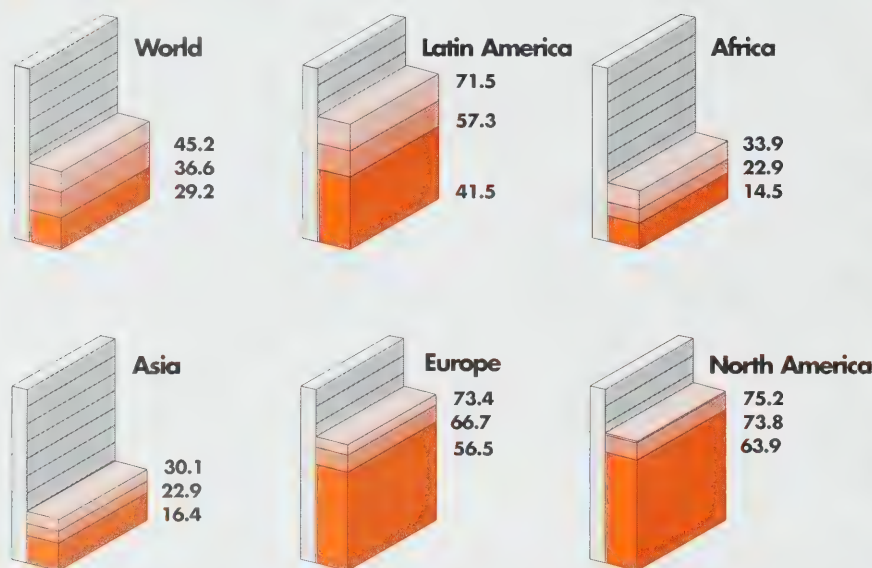
FACTS AND FIGURES

The Americas region has the world's second fastest growing population, surpassed only by Africa. Yet, despite an increase in the absolute number of people, population growth rates



Urban population by region (%)

1950-55 1970-75 1985-90



Source: UN World Population Prospects, 1990

for the region have declined steadily since peaking in the mid-'60s and are expected to decrease to half this rate by 2025. The Americas encompasses many diverse regions, and even though the overall population growth rate has declined, sub-regional differences are somewhat striking. In 1990, Central America had the highest growth rate in the region at 2.3 per cent, compared to South America at 2.0 per cent and the Caribbean at 1.5 per cent.

CITIES — RECENT TRENDS

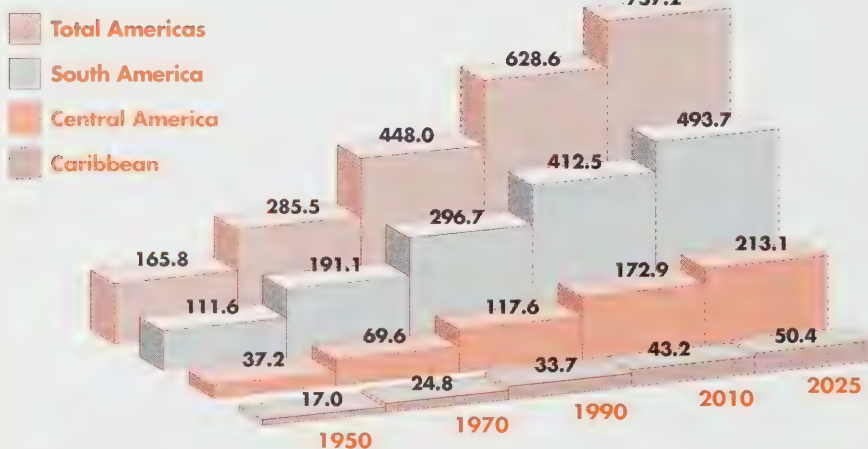
Latin America is one of the most urbanized regions in the world. While the Americas' population trends and urban growth rates parallel those in the developing world, the percentage of people living in cities corresponds to those of the industrialized nations. Over 70 per cent live in urban areas, compared to 41 per cent in 1950. The trend in urbanization is by no



means slowing down. By the year 2000, 76 per cent of the population will live in cities, a large proportion in urban slums and in low income areas around the periphery. By the end of this century, there will be nearly 50 cities in Latin America with a population of 1 million, and four of them — Mexico City, Buenos Aires, Sao Paulo, Rio de Janeiro — will rank among the ten largest cities in the world. The two biggest cities in the world — Mexico City and Sao Paulo — will grow far faster than the urban centres of more developed countries such as Tokyo, New York, Los Angeles and London. Overall, population in Latin America's cities is projected to increase by over 90 million people between 1990 and 2000.

If the present trends do not change radically, it will be virtually impossible for city planners to design, even with the most advanced methods and tech-

Population growth in the Americas (millions)



Source: UN World Population Prospects, 1990



CIDA Photo: David Barbour, Mexico

nologies. How can planners in Mexico, for example, cope with an influx of 700,000 people every year? It is expected, therefore, that most major centres will develop in a haphazard fashion. Housing will be more crowded, slums will deteriorate and the lack of basic water and waste disposal services will be critical. This situation will have a direct impact on the health status of the inhabitants. New needs will arise in such fields as occupational health, disease and crime prevention, and environmental sanitation.

The urban growth of Latin America (see left graph) is unique in many ways. Latin America is both developed and developing. As a region, the Americas is similar to Europe and North America in that it is highly industrialized and highly urbanized. But, like many developing regions, its cities are growing much faster than its industrialized counterparts.

POLLUTION IN THE CITIES

Several major Latin American and Caribbean cities suffer air and water contamination which has reached alarming levels.

The same mountains that once brought cool evening breezes now help trap polluted air — the product of car, truck, and bus exhausts and factory smoke-stacks — in the thermal inversions that form above the cities. Air pollution alone results in an estimated 2.3 million cases of chronic respiratory illness among children, 105 thousand cases of chronic bronchitis among the elderly and nearly 65 million days of work lost.

Mexico City is often cited as the extreme example where conditions of life for the city's residents have become steadily worse. Unregulated

sources of pollution are the main cause of the city's misery. There are an estimated 36 thousand factories with some 3 million cars, trucks and buses, emitting 5.5 million tonnes of contaminants each year. An astounding 30 per cent of these contaminants could be eliminated from the atmosphere if this fleet were given a tune-up. The greatest risk to human health from automobiles is the amount of lead in the gasoline.

In Mexico City, a high proportion of newborns tested had lead in their bloodstreams and the average lead levels in the blood of residents is nearly four times that of a Tokyo resident.

The policies of neglect perpetrated by Latin American governments is slowly changing with pressure from environmental groups and the public. Pemex, the state oil company in Mexico, has introduced a new petrol with lower lead content. In addition, in 1990, drivers were banned from using their cars on a rotating basis one day a week during a two-month test program. And beginning in 1993, all new automobiles produced in Mexico will be required to have catalytic converters.¹

Along with increasing air pollution in the cities, water is a serious source of disease and other health hazards. Untreated waste water dumped into rivers, then used to irrigate vegetables grown for urban food supplies are particularly harmful. Although much has been done in recent years to improve access to safe water, population growth could easily outstrip the abundant water supplies which most Latin American cities possess. Mexico City, for example, built on what was once a lake, is pumping ground water far faster than it is replenished, an unsustainable situation. In Central America, in 1988, only 59 per cent of the population was served by adequate water facilities, and only 58 per cent had sanitation service.²

Added to these effects on the city environment is industrial contamination, affecting water, soil and atmosphere. Again, very few effective policies are in place to prevent further pollution.

A glimmer of hope in the valley of death

Cubatão, an industrial town located near São Paulo, has cleaned up its act and become one of Brazil's success stories. Before a river was dammed for energy in the '70s, Cubatão was a pleasant, scenic town. By 1985, it had the inauspicious reputation of being the most polluted place on earth. Heavy industry, including fertilizer and chemical producers, was producing 3 per cent of Brazil's gross national product and literally poisoning the land and the residents, forcing yearly emergency evacuations.

From 1983 to 1987, the state worked with the private sector, sharing the cost of the cleanup. Out of 320 sources of pollution, 249 had been cleaned up and controlled by late 1988. Particulate pollution

had been reduced 92 per cent, ammonia was down by 97 per cent and the hydrocarbons that cause ozone depletion were cut by 78 per cent. Sulfur dioxide levels fell by 84 per cent, but nitrogen oxides dropped only 22 per cent.

Since then, water quality has been improved to the point that, after a 30-year absence, fish have returned to the Cubatão River. Also, a program to reforest the mountain slopes has been launched to prevent further erosion and mudslides.

The worst polluter, however, is still the government-owned steel plant. The administration cannot afford to implement pollution control because of the budgetary restrictions caused by the debt crisis.

CUTTING DOWN THE RAIN FOREST

There are three issues of greatest environmental concern — deforestation, soil erosion, and decline of marine and coastal resources.

More than half of the world's remaining tropical forests stand in the Americas, and Brazil has by far the largest share — some 30 per cent of the earth's rain forests. Moreover, the rate of deforestation is highest in Brazil, where the environmental spotlight is mostly focused. Estimates on deforestation of Brazil's Amazon vary widely, ranging from 1.7 million to 8 million hectares per year. A recent study indicates that overall deforestation in Brazil accelerated in the early 1980s, peaked in 1987, and declined in 1988-89 because of policy changes and wetter weather conditions.

According to a 1988 study, 5 to 7 per cent of the forested Amazon has already been lost. The figures are still disturbingly high and it is now believed by some that deforestation has been higher than previously thought. Soil erosion and loss of species are the obvious results from deforesting the Amazon, along with more recent concerns such as local climate change. The Amazon basin is a major source of water vapor. If deforestation causes lower amounts of rainfall, this could seriously harm the

farmers of the savannas as well as the Amazon ecosystem. Also, burning the forest has become a significant source of carbon dioxide, a gas that contributes to the greenhouse effect. In 1987, deforestation in Brazil accounted for more than 15 per cent of the world's total carbon dioxide emissions.

Yet, the focus of debate about Brazil's situation sometimes overlooks the fact that deforestation is a regional problem — other countries face large-scale deforestation in both Central America and the Caribbean. In Costa Rica and El Salvador, for example, deforestation affects over 3 per cent of their forests each year. Similarly, deforestation rates for Colombia and Mexico are disturbing — 1.7 per cent a year and 1.3 per cent, respectively. To shift for a moment to worldwide figures, during the 1980s, the average annual deforestation rate was estimated at 0.53

per cent for Africa, 0.58 per cent for Asia and 0.61 per cent for Latin America and the Caribbean.

There is no value that can be placed on the destruction of tropical forests. These complex ecosystems are believed to contain half of all plant and animal species on Earth. Fortunately, experience has shown that livestock and farming activities in tropical forests with poor soils are not only unsustainable, but also are costly and inefficient. A study of the annual market value of edible fruits, cocoa, and rubber from one hectare of Peru's Amazon forest showed that, over time, the revenue was approximately six times the amount that could be earned from harvesting all the timber in a single year or twice the value of converting the land to cattle pasture.

WEARING AWAY THE LAND

Land misuse and mismanagement results in the serious problem of soil erosion, which has ravaged a large part of the region. According to some country estimates, up to 50 per cent or more of the currently arable land has

Tropical rain forests



been severely affected or ruined by bad land use. Some estimates of the long-term effects of soil erosion suggest losses of 30 per cent in Central America and 10 per cent in South America of the potentially cultivatable unirrigated land.³

The fertile soils of South America cover only about 10 per cent of the continent. The Argentinean Pampas, the largest fertile area, has been so degraded that forage production has been reduced by an estimated 50 per cent. Grazing lands are so badly managed that their productivity is declining throughout the region. In South America, 47 per cent of the soils lose fertility because of the way they are used for agriculture. And badly operated irrigation systems have caused flooding as well as the salinization and alkalization of soil.

Erosion rates are particularly high in some Caribbean and Central American countries where soil from denuded steep slopes is washed to the sea by heavy tropical rains. In several Central American countries, erosion rates reach 500 tonnes per hectare, compared to 18 tonnes in the US croplands. Signs of land degradation abound: deforestation and land abuse patterns are chronic and widespread. Rapid population growth is putting severe pressure on the environment. Furthermore, the lack of control of renewable resources

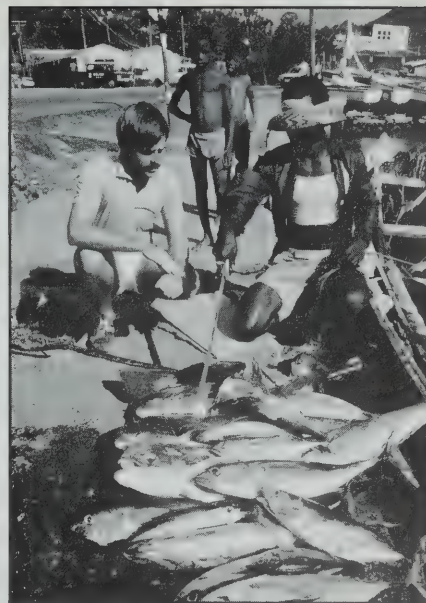
is resulting in a growing number of poor people farming in the most ecologically sensitive and marginal areas. At the national level, the debt problem compels Central American economies to over-exploit their natural resources for short-term gains. Yet, these resources are vital to the region's future development, accounting for more than half the region's economic production, half of all employment and most exports.

Resolving land tenure problems is likely to be a necessary part of reducing not just deforestation but the erosion and soil degradation that occurs when steep slopes or other marginal lands are farmed with unsophisticated methods. Land reform programs have been initiated in most Andean countries — Chile, Peru, Ecuador, and Bolivia — but, over time, they have not had the intended impact, and in some cases, they have been reversed.

HARVESTING THE SEA

Soil erosion and deforestation are common concerns in all areas of the Americas, but it is the Caribbean basin that stands to lose the most from the destruction of marine resources and the deterioration of coastal zones.

The Caribbean basin holds some of the most exotic fisheries stocks in the



CIDA Photo: Dilip Mehra, St. Lucia

world, found mostly in coastal areas and supported by magnificent coral reefs, vast underwater meadows, protective mangroves and nutrient-rich mud bottoms. Recent estimates put the region's catch at 2.3 million tonnes.⁴ In these shallow and deep water reefs, small-vessel fishing is economically important... and it is here that over-exploitation of species has resulted in low catches, changes in species composition and reduced mean sizes. If this trend continues, it could seriously harm the region's potential for further economic growth. Among the consequences would be decreased income and employment, fewer sources of foreign currency, and reduced service to the tourism industry — a \$4.4 billion business upon which many islanders depend to earn their living.

Lower quotas of over-exploited resources, such as conch and lobster, as well as marine reserves and rehabilitation programs are essential in reversing the declining trend. There is a need for a significant shift from fish catches in coastal waters, which are over-exploited, to open sea harvest — tuna, sharks and flying fish. Such a move, however, would involve making improvements in the technology and vessel safety of artisanal fisheries.

Other opportunities for the sustained development of fisheries in the region include recreational fishing

An interview from Costa Rica

"When I first came down here I heard that it was all the timber companies and the multinationals who were cutting down all the rainforest. At least in Costa Rica, and I think in much of the world, that's not really true. The large part of the forest being cut down is done by people who need to make a living. In Costa Rica the way this works is: somebody goes into a piece of land with no road, cuts down most of the trees, possibly finds a person in the lumber industry, who has a truck, who will buy maybe 5 or 10 per cent of the best wood in exchange for building a road in. The other 90 to 95 per cent gets cut down and left to rot. Farmers then plant pasture, get a bank loan, put in a few cows, raise them up, sell some of them, pay off the loans, maybe sell off the land.

"So I went down to the back boundary and ran into people who had axes and

chain saws, who were cutting down the rain forest. And I asked people what they were doing and why they were doing it. I asked how much do you expect to make? They didn't really know. How many head of cattle can you support on this land? Maybe they had 12 hectares — that's about 30 acres. They'd say about six head of cattle. That's about 5 acres or 2 hectares per animal. So I started figuring out how much people were making off this land that was being cut down and turned into pasture from rain forest. And it amounted to about \$10 per acre per year. That's what was driving this whole thing. Cut down the rain forest to make \$10 an acre a year. I thought, there's got to be another way."

Source: Amos Bien in "The Rain Forest — A Report from Costa Rica," Duchêne Productions Ltd.



Coastal pollution and the impact of tourism are key factors in the sustainable development of the Caribbean.

(sport fishing tournaments, diving and general growth of tourist industry in this direction), harvesting land crabs and collection of black coral. In the case of the latter, management plans should develop size, quantity and location restrictions. Whatever avenues for development are explored, they need to be accompanied by a management system that ensures the economic health of the fishery resource.

Together with over-exploitation of fish stocks, coastal pollution is a critical issue. Waste from urban areas and industry in the form of contaminants and raw sewage are often dumped untreated (an estimated 98 per cent) into rivers or directly into the sea. In addition, direct discharge from resort hotels onto swimming beaches can cause further health and pollution problems. Tourism exerts added pressure on coastal areas, sometimes diminishing the very attractions that support the industry. Poor land practices have increased sedimentation in mangroves and lagoons. These factors pose serious constraints to economic and social development.

While at least 85 per cent of marine contamination in the region is caused by human activity on land, pollution on the open seas is cause for increasing concern. It is estimated that oil spills in the region total more than 500,000

tonnes each year — marine transport being responsible for more than 28 per cent of these incidents. Long-term effects of these spills are still unknown.⁵

There are, however, opportunities and solutions for greater economic development and effective resource management of coastal zones. Rather than making trade-offs and simply avoiding the undesirable impacts often associated with development, planning efforts could incorporate coastal habitats, thereby increasing the perceived resource value and offering greater incentive and justification for sound resource management.

In the tourist industry, for example, the construction of marinas for recreational boating has been associated with having a negative effect on coastal areas, but this need not be. Instead of large-scale removal of mangroves (one of their natural functions is trapping sediment and controlling erosion), perma-

nent moorings for small craft or floating docks could be built. Alternatively, better land-based developments that are designed to control erosion and sedimentation could be linked with marina construction.

The main issue in developing the region without destroying the resource base requires a careful analysis of the interdependent factors. Understanding how the environment works is the first step. And there must be the will to act on this knowledge. Development can then be designed to harmonize with the natural surroundings rather than compete with it. And, scientific and reliable information is crucial for effective planning. Some islands have conducted environmental profiles, which may meet much of the need for data, provided that the technical quality and level of detail is sufficiently high. Universities and technical training as well as long-term stable budgets could contribute to the success of monitoring and managing coastal resources.

For the more distant future, the Caribbean also offers considerable potential for coastal aquaculture, with its protected harbors and lagoons, relatively fertile brackish water estuaries, marginal agricultural coastal land and tropical climate for year-round growth. The high-risk nature of aquaculture — high-capital outlay, disease and predation — requires, however, careful planning and good business judgement. Pilot projects can provide the basis for opportunities for training as well as overcoming technical constraints.



Part 3: The Americas in the 1990s



CHALLENGES AND PROSPECTS

In the 1980s, the eclipse of the Americas was largely blamed on its foreign debt, but the real problem, say experts, was the dominant economic model which emphasized protectionism and state intervention.

BREAKING NEW GROUND

The region was the first in the developing world to fight large fiscal imbalances with comprehensive structural adjustment programs. The sweeping economic reforms have brought about major improvements in key areas: export growth, a rationalization of the role of the state in society, and a more positive attitude toward the private sector's contribution to economic growth, which has led to the emergence of a new breed of entrepreneurs.

If current trends hold, prospects look good, especially for Latin America. Its leaders are now fully convinced that the future lies in openness and a stronger relationship with the rest of the world.

To further their case, they point to the region's bustling money markets. In a dramatic reversal of fortune, billions of dollars are flowing back into Latin America as foreign and domestic investors take advantage of booming financial markets and improved prospects for economic growth. The Inter-American Development Bank (IDB) reports that net inflow of capital to Latin America was \$16.4 billion in

1990. This was the first time in over a decade that more money came into the region than went out. And unlike the late '70s, these investments were used not toward risky loans, but to finance stocks, joint ventures and factory startups. The IDB measured direct foreign investment in 1990 at \$9 billion and predicts it could reach \$22 billion a year by the end of the decade.¹ Four countries in particular have up to now benefited most from the capital inflow: Mexico, Chile, Venezuela and Colombia.

The once lethargic trading floors of Latin American stock markets are now bustling. Why this sudden surge in Latin America's stock market game? The answer is simple: there is money to be made. The debt crisis has driven Latin American stocks down, and thus good bargains can be struck. In fact, in some places in recent years, a lot more money has been made in Latin American stocks than through ownership of the blue chip shares listed in the Dow Jones Industrial Average. There are many good opportunities, and more coming along all the time, say experts. This trend explains why US brokers are now offering foreign-based portfolio funds consisting of baskets of Latin American stocks. In turn,



the injection of foreign capital in the region fuels domestic savings and the return of flight capital.

Most critical to this sudden growth is the rising level of investor confidence. Reassured by the rapid liberalization of Latin America's economies, the massive investment by US and European firms in some of the region's biggest companies, and the eagerness with which Latin American leaders are offering inducements to foreign businessmen, investors are now convinced that private companies can and do prosper in these countries. In investment terms, it seems Latin America is back on track.

The region is also breaking new ground in social development. Major inroads include the changing role of the Church, the emergence of popularly-elected leaders and more emphasis on respecting human rights. The Church and, to a lesser degree, the military, so long dominant in the



CIDA Photo: Patricio Baeza, Bolivia

Human resource development will strengthen the Americas' advantage in the global economy.

region's affairs, now support the ongoing major societal changes. A strong commitment to human rights in the face of repressive governments and terrorist movements, the promotion of human development, and increasing support for pluralism and democracy have become the hallmarks of the Catholic Church's activities in Latin America. With its emphasis on peace, justice and respect for the individual, the church has emerged as a major actor in the human rights struggle.²

Liberation theology has been closely associated with local church organizations built around high levels of popular lay participation and committed to bridging the gap between reflection and action. These action groups became instruments of popular resistance to authoritarian military rule, and, in several countries, provided a focus for dissenters. In Chile, Paraguay,

Brazil, Nicaragua and El Salvador, the Church was at the centre of the opposition to well-entrenched dictatorships. In most instances, this resistance paved the way for more democratic forms of government.

Politically, the Americas consolidated its democratic practices and institutions well before the Berlin Wall crum-

bled and democratic movements swept Eastern European countries. The fact that, for the first time in history, the region is mostly composed of democracies is starting to breed hope and confidence among its people. The desire to participate extends beyond the electoral process to include the grass-roots strengthening of action and community groups, such as trade unions, women's groups, urban movements, peasant groups and environmentalists.³

As to the threat the military poses to democracy in some of these countries, the armed forces are searching for new roles amidst rapid changes, and many are advocating innovative ways of using the army more efficiently. Part of the reason stems from the fact that the armed forces or juntas know that they can no longer lead a country without the legitimacy of elections.

These social and political trends, along with the economic recovery process under way, offer promise of an increasing standard of living for the half billion people who will occupy the region at the turn of the century.

DEMOCRACY AND HUMAN RIGHTS

Leaders, in the region as well as around the world, are now realizing that democracy and human rights are not luxuries, nor are they the result of being 'developed'. Rather, they are the basic conditions which enable societies to develop and prosper. While

Prescription for democracy

The connection between accountability, transparency in decision-making and democratic practices should become the over-riding objective of good government, says the Lima-based Institute for Liberty and Democracy, headed by Hernando De Soto. The Institute firmly believes that the key to progress lies in traditions of dialogue between governments and governed, of checks and balances and accountability. Among its clients are Colombia, Peru and Nicaragua.

De Soto's centrepiece of good govern-

ment, which he calls democratic decision-making, is a version of representative power adapted to the region's reality. Instead of ruling by decree, governments would submit a draft law for public discussion, beginning at the village level. As the proposed law moves along, it could be amended by those whom it affects. De Soto concedes that such a system would be neither speedy nor efficient. But he believes that debate makes for better laws, and effective laws breed trust in government.



economic growth provides the conditions for improved human rights, a respect for human rights contributes to sustainable socio-economic development.

The movement towards democracy in the region has been further reinforced by what appears to be the end of the civil war in Nicaragua and El Salvador. Yet, amidst positive trends, serious concerns exist. Human rights violations are still going on. In addition, disturbing signs confirm that the Caribbean region is being used as a trans-shipment point for cocaine cartels, which seem to capitalize on the region's location mid-way between the drug-producing centres of South America and the lucrative North American consumer market.



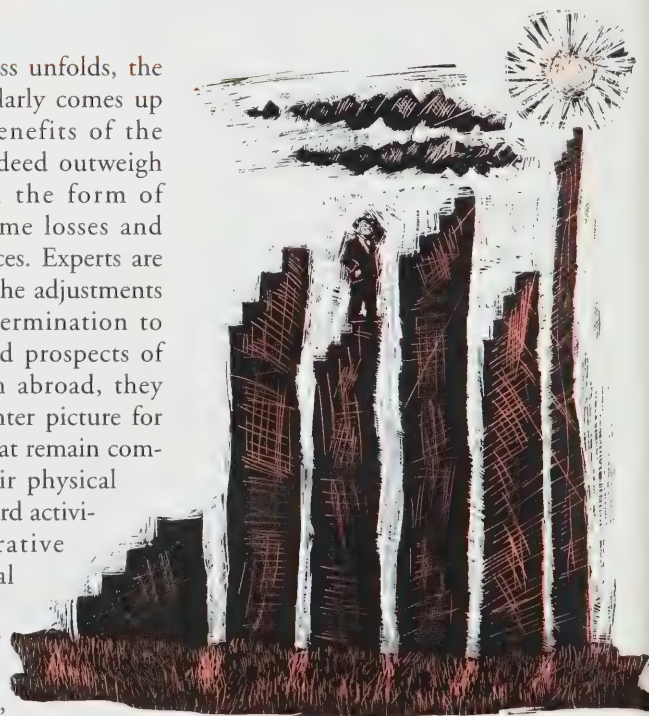
In the Caribbean, it can now be claimed that there are more popularly-elected governments in the region than at any time in history. However, for many of the sovereign states, the real challenge is to translate the benefits of political self-determination into grass-roots economic development and substantial social change.

THE TOUGH ROAD TO PROSPERITY

As the reform process unfolds, the question that regularly comes up is whether the benefits of the policy changes will indeed outweigh their present costs in the form of unemployment, income losses and cutbacks in social services. Experts are cautiously optimistic. The adjustments already made, the determination to implement reforms and prospects of attracting capital from abroad, they say, all point to a brighter picture for the 1990s. Countries that remain competitive and direct their physical and human capital toward activities with a comparative advantage in the global economy will find ample opportunities for export-led growth. Non-traditional goods,

which are expected to reach an annual growth rate of 6 per cent, are expected to lead the recovery. A recent OECD survey of economic prospects sees Latin America, as a whole, running substantial trade surpluses.⁴ Foreign investment is also expected to grow at between 5 and 10 per cent in real terms from 1992 on. According to the IMF, Latin American economies can look forward to 5.5 per cent annual growth in the first half of the 1990s — if current economic reforms are pursued. The growth estimate, based on the Fund's latest projection, would make Latin America the fastest growing region in the developing world.⁵

More precisely, GDP growth rates of between 3.9 and 5 per cent are projected for Argentina, Brazil, Colombia, Chile, Mexico and Venezuela. The smaller countries of the region may be less successful, as most are expected to sustain a growth of 3 per cent a year. Yet, after the dismal decade of the 1980s, such prospects are good news. But economic growth will ultimately be determined by the countries' resolve to pursue the difficult path of reform and to address social development issues. The prospects would be further enhanced, say experts, if governments and nations took better advantage of the efficiencies offered by economic integration.



REGIONAL INTEGRATION AND FREE TRADE

A group of experts on Latin American integration concluded recently that prospects for strengthening intra-regional trade and investment have never been greater in the past 40 years. There is undoubtedly a renewed interest in integration, as shown by the Southern Cone countries' agreement to form a common market by 1994 and the Andean Pact countries' plans to establish a free-trade zone by 1992. The Caribbean Community has launched a regional stock exchange, and plans to institute a common market by 1994. Under the Economic Action Plan for Central America, adopted last year, the groundwork also is being laid to revive the Central American Common Market.

Unlike the inward-looking trading bloc approach to integration in the 1960s, the new movement looks beyond regional borders, emphasizing exports, foreign investment and trade. Overall, there is a genuine political desire to see how countries can work together to promote exports to third markets and to attract investment. These trade opportunities are likely to strengthen the countries' debt-servicing capacity, allow them to import much-needed capital and intermediate goods, and help them achieve sustained economic growth.⁶

The decision to open up markets and seek free trade is one of historic proportion for the countries of the region. At the same time, the process stems from economic realism. For most of the region's countries, there is no substitute for the American market. More than 40 per cent of the region's trade is with the US, more than double the percentage for any other country or group of countries, including the EEC. In addition, the proportion of the region's trade with the US increased 10 percentage points during the 1980s.⁷

The United States President, in launching the Enterprise for the



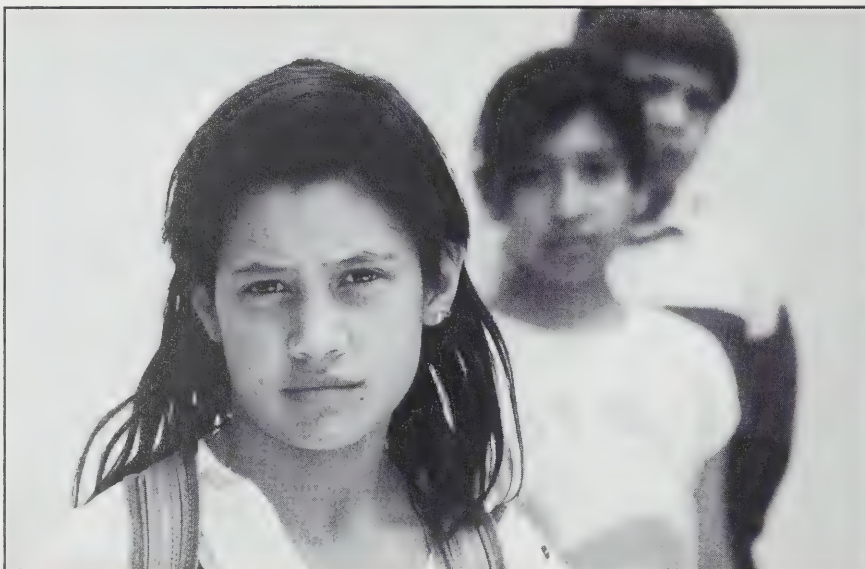
CIDA Photo: Pierre St-Jacques, Brazil

Americas Initiative in June 1990, foresaw the day when there would be a free-trade bloc including not only the US, Canada and Mexico, but the Caribbean and Central and South America as well. The new union would encompass more territory and potentially more volume than the European Community. The President's initiative involves a range of US policies, programs and proposals. Like the EEC Lomé Convention, it seeks to combine possible commitments on aid, trade, debt relief, investment and technology into a more global approach to eco-

nomic development, while fostering the practice of regional cooperation. Its proponents stress that the groundwork for this proposal has already been partially accomplished. A free-trade agreement was signed between Canada and the US in 1989. Intense negotiations have led to an initial agreement to expand free trade in North America. The proposed NAFTA (North American Free Trade Agreement) brings Canada, the United States and Mexico together into a free trade area even larger than the European Economic Council.



CIDA Photo: Dilip Mehta, Grenada



REGIONAL PROSPECTS

Is the new path chosen by the Americas the right recipe for stability and prosperity? What role will the region play in the global community? Can democracy survive the threat of poverty and social inequalities? Answers to these questions call for a closer analysis of regional and sub-regional trends.

For the '90s, the Americas' main concern is to compete on world markets. As stressed earlier, experts offer a mixture of hope and caution. The region is obviously on the right track. And greater strides toward free enterprise, entrepreneurship and the dismantling of government controls on trade and finance are expected to strengthen the region's level of competitiveness.

At the same time, governments are being asked to bolster investment incentives, to educate their young people and to provide basic services to the poor and the underprivileged. Its leaders know too well that the region will never fully develop until it closes the wide gap between rich and poor, and integrate the resources and efforts of 40 per cent of the population that lives on the fringe of development.

But where will the resources to fight poverty come from? Mostly from two sources, say experts: economic growth — which explains why the recovery process is so vital to the region's future —

and a comprehensive reform of the tax system. Economic growth is by far the most effective way to reduce poverty. Fiscal measures can also prove useful. In many countries, formal taxes on income are high but very few from the middle or upper classes bother to pay. As a result, governments are forced into deficit financing or must rely on indirect taxes which penalize the poor. Popularly elected leaders have come to realize that the need to strengthen democracy and to overcome poverty calls for an overhaul of the tax system. A majority of countries have already moved to reform their tax systems.

The above factors hold true for most, if not all, of the region's countries. But other concerns tend to vary according to sub-regional groupings. In South America, in addition to the foreign debt, major challenges include the need to attract investment capital, and to reverse negative environmental trends. And solutions are very much intertwined: growth is essential to fight poverty and reduce inequalities; and democracy is needed to overcome environmental degradation. In turn, the region's economic model requires the inflow of foreign capital and technology, combined with massive investment

in education and other social sectors.

In Central America, future progress relies on the peace process and in reducing social inequalities. Additional efforts are also needed to strengthen democracy, regional cooperation, and policy reform. Positive trends include the peace process and brighter economic prospects. Progress towards peace — the most significant development in the region — puts an end to nearly two decades of political and military conflicts and provides new hope for the future. Economic trends are also improving.

The Caribbean's biggest challenge comes from global markets. How will small states adjust to the economic challenges of tomorrow? Even today, as strong regional blocks emerge in North America, in Europe and in Asia, new trading rules are being laid down which exclude preferential treatment for these countries. As a result, their prospects are marred by intense competition, shrinking markets for exports, and a scarcity of external capital. To overcome these constraints, CARICOM countries must increase their efforts to deepen economic integration and functional cooperation, at the sub-

regional, regional and the hemispheric levels. These challenges are bound to require high levels of responsiveness and inventiveness by the Caribbean people.

These are some of the general and more specific challenges the Americas will likely face in

The Americas can rely on several assets: its natural wealth, its high level of development, and, above all, on the resourcefulness of its people.

the coming decade. How they respond to these trials will determine, in large part, the way the region develops in the 21st century. In actualizing their solutions, the new democracies can count on the resolute determination of a new generation of leaders to solve the region's economic and political problems. The Americas can also rely on several assets: its natural wealth, its high level of development, and, above all, on the resourcefulness of its people.

Notes to Introduction

(1) If any book sums up the accusations, it is Kirkpatrick Sale's *The Conquest of Paradise*, published in 1990. Sale, a social historian whose research into Columbus' life and travels is impressive, indicts the man on several counts for moral bankruptcy. Anti-Columbus feelings are by no means limited to historians. In 1990, the National Council of the Churches of Christ in the U.S. adopted a resolution suggesting that celebrations be postponed. In May 1991, it was up to the Canadian Council of Churches to declare that the 500th anniversary should be marked by "reflection and repentance" for Columbus' treatment of the natives.

(2) R. Corelli, "To Celebrate or Repent," *Macleans*, August 5, 1991, pp. 42-43.

(3) Z. Dor Ner and W.G. Scheller, *Columbus and the Age of Discovery*, New York: W. Morrow and Company, 1991, pp. 1-2.

(4) P. Gray, "The Trouble With Columbus," *Time*, October 7, 1991, p. 50-54.

(5) Dor Ner and Scheller, p. 243.

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(2) *The Cambridge Encyclopedia of Latin America and the Caribbean*, New York: Cambridge University Press, 1985, p. 165.

(3) *The Cambridge Encyclopedia of Latin America and the Caribbean*, p. 171.

(4) *The New Encyclopedia Britannica*, Chicago: W. Benton, 1982, Vol. 17, p. 120.

(5) The Latifundia or hacienda refers to large estates owned by individuals of European descent, who typically control most of the wealth in the individual countries.

(6) *The New Encyclopedia Britannica*, p. 98.

(7) M. Osorio, "An Interview with Gabriel Garcia Marquez," *The UNESCO Courier*, October 1991, pp. 10.

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(2) R.H. Jackson and L.E. Hudman, *World Regional Geography*, 2nd edition, New York: John Wiley and Sons, 1986, p. 514.

(3) *The Cambridge Encyclopedia of Latin America and the Caribbean*, New York: Cambridge University Press, 1985, pp. 92-93.

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(2) UNICEF, *Adjustment With A Human Face*, 1987, p. 93.

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(2) "Nicaragua Country Report," *The Economist Intelligence Unit*, No. 2, 1992, p. 9.

(3) "Nicaragua Country Report," *The Economist Intelligence Unit*, No. 3, 1991, pp. 9-10.

(4) United Nations, Department of International Economic and Social Affairs, *World Economic Survey 1989*, New York, 1989, p. 169.

(5) "Peru Country Profile," *The Economist Intelligence Unit*, 1991-92, p. 9.

(6) "Peru Country Report," *The Economist Intelligence Unit*, No. 2, 1991, p. 11.

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(2) United Nations Economic Commission for Latin America and the Caribbean, *The Dynamics of Social Deterioration in Latin America and the Caribbean in the 1980s*, May 1989, p. 11.

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(2) World Resources Institute, p. 41.

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(4) Food and Agriculture Organization, *Fisheries Statistics, Catches and Landings*, Table A-4, Vol. 68, 1989.

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(2) M.E. Crahan, "Church and State in Latin America," *Daedalus*, Summer, 1991, p. 151-52.

(3) M.S. Serrill, "Latin America: Beyond Debts and Dictators," *Time*, October 28, 1991, p. 56.

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(6) Inter-American Development Bank, *Economic and Social Progress in Latin America: 1990 Report*, Washington D.C., 1990, p. 10.

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